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ABSTRACT

This report is the outcome of study group that investigated best practices for serving individuals who are deaf and low functioning. It is designed to help State Vocational Rehabilitation (VR) Agencies assist individuals with disabilities in securing competitive employment and is meant to be a source for innovative ideas for program development and a tool for use in training of general VR counselors as well as rehabilitation counselors for individuals with deafness. Chapter 1 frames the areas of consideration when serving individuals who are deaf and low functioning, including education, family, rehabilitation, and environment. Chapter 2 discusses methods of identifying and assessing persons who are low functioning deaf. Chapter 3 describes the importance of school-to-work transition and the roles of family, education, and other service delivery systems throughout the process. Chapter 4 advocates the team approach in achieving employment outcomes. Chapter 5 describes the critical need for qualified staff to serve persons who are deaf and low functioning. The final chapter examines the need for agency assessment of the quality of services provided to this population. Appendices include an explanation of the Workforce Investment Act of 1998, outreach and supported employment, a communication assessment case study, and rehabilitation Web sites. (Contains 73 references.) (CR)

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Serving Individuals Who Are Low-Functioning Deaf

25th Institute on Rehabilitation Issues

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The Rehabilitation Services Administration
U.S. Department of Education *in cooperation with*
The Council of State Administrators of Vocational Rehabilitation *and*
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The George Washington University
WASHINGTON DC

Report from the Study Group

Serving Individuals Who Are Low-Functioning Deaf

25th Institute on Rehabilitation Issues
1999

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Note on Terminology

The term "low-functioning deaf" has been used since the late 1970s to describe the group of individuals to be discussed in this report. This term was used by the Commission on Education of the Deaf (COED), by the National Institute on Disability and Rehabilitation Research (NIDRR), by Vocational Rehabilitation (VR), and in legislation passed by the United States Congress. This term is used in this report to achieve consistency in terminology and is not intended to perpetuate a negative "label" for persons with a disability. When this term is used, the authors are referring to persons who are diagnosed as deaf or having a hearing loss through clinical assessment and who require adapted communication in their everyday lives. The authors of this report acknowledge that the field must develop more person-centered language to describe this group of deaf and hard-of-hearing persons. This challenge, however, is beyond the scope and purpose of this document. The authors, therefore, agreed to use the terms "persons who are identified as LFD" or "individuals who are LFD" as the preferred references in this publication.

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Dedication

This publication is dedicated to the memory of Boyce R. Williams, Sr., Ph.D. (1910-1998), a national and international leader in developing programs for adults with communication disabilities. A native of Racine, Wisconsin, Boyce Williams lost his hearing at the age of 17 after a severe case of meningitis. He graduated from Gallaudet University and later received an advanced degree from Columbia University. He was chief of the Department of Education's Deafness and Communication Disorders Branch until he retired in 1983 after 38 years of government service. In that capacity, he was responsible for the development and expansion of the State-Federal Vocational Rehabilitation Program of services for people who are deaf, and he initiated research and demonstration projects to meet the underserved segments of the deaf population.

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Introduction

The Institute on Rehabilitation Issues Prime Study Group on Serving Individuals Who Are Low-Functioning Deaf is pleased to provide this document. The group hopes that it will help State Vocational Rehabilitation (VR) Agencies assist individuals with disabilities in securing competitive employment. The document is meant to be a source for innovative ideas for program development and a tool for use in training of general VR counselors as well as rehabilitation counselors for the deaf.

The members of the Prime Study Group sought to include new ideas and conceptualizations in addition to best practices currently being used to serve this population. The document reflects this endeavor. There are developments and trends in this report that reflect dramatic changes in the way VR does business and illustrate the ability of VR professionals to be highly innovative in changing times.

The report contains six chapters. The first chapter frames the areas of consideration when serving this population. Chapter 2 discusses methods of identifying and assessing persons who are low-functioning deaf. Chapter 3 describes the importance of school-to-work transition and the roles of family, education, and other service delivery systems throughout the process. Chapter 4 advocates the team approach in achieving employment outcomes. Chapter 5 describes the critical need for qualified staff to serve persons who are low-functioning deaf. Chapter 6 examines the need for agency assessment of the quality of services provided to this population.

The Prime Study Group wishes to express their appreciation to those who participated in the 25th Institute on Rehabilitation Issues as members of the Study Group on Serving Individuals Who Are Low-Functioning Deaf. Their input was most beneficial in developing this document. In addition, Mitch Irzinski's support, from the individual study group meetings to the initial drafts of the study group report, was essential for the entire effort. Finally, the editorial assistance of Cynthia D. Orticio has been invaluable in bringing this document through its final stages.

1 Understanding Individuals Who Are Deaf and Low Functioning

Current population estimates indicate that there are approximately 54 million Americans with disabilities (U.S. Civil Rights Commission, 1998). Extrapolating from data reported by Holt and Hotto (1994) leads us to estimate that 23.1 million—or 43%—of these Americans with disabilities are persons who are deaf or hard of hearing. These data highlight the fact that persons with a hearing loss comprise the largest chronic physical disability group in the United States. The successful education and rehabilitation of persons with deafness or hearing loss pose a significant challenge to families, education and rehabilitation professionals, and the individuals themselves. These challenges include the diversity within the group with regard to hearing loss, the presence of an additional disability, the cultural issues associated with deafness, minority cultural membership, the economic status and geographic residence of the family, and the availability of appropriate education and rehabilitation services.

The challenges for the larger population of persons with hearing loss relate to the identity issues of being culturally Deaf, late deafened, or hard of hearing. These issues manifest themselves in the communication method and psychological identity of the individual, the relationship to family and the broader community of hearing persons, and ultimately, the educational and rehabilitation choices made by and sometimes "for" the individual. The medical, educational, and psychological adjustment of these individuals will have a significant impact on all major functional areas of the person's life, as will the availability and quality of the services they receive.

Within this larger population of persons who are deaf and hard of hearing is a group of individuals whose skills and competencies are considered to be inadequate to achieve employment or independent living goals. These persons have been referred to with such terms as "low-functioning deaf individuals," "underachieving," "severely disabled," "minimal language skilled," "multiply handicapped," and "traditionally underserved." The term "low-functioning deaf," which sometimes also included persons who are hard of hearing, has been used since the late 1970s to describe the group of individuals to be discussed in this report.

A survey research study conducted by Long, Long, and Ouellette (1993) identified a number of risk factors often associated with persons who are deaf and hard of hearing who have been identified as LFD. These factors include low socioeconomic status, incorrect diagnosis, being foreign born, being a member of a minority community or from an environment where the spoken language in the home is not English, lack of access to appropriate education, lack of family support, substance abuse, secondary disabilities, discrimination, and residence in a very rural or low economic urban setting. As a consequence of these risk factors and the interactive effects of these factors with each other and with hearing loss, adults who are identified as LFD are more likely to experience limited communication abilities, difficulty maintaining employment, and poor social and emotional skills, and are assumed to be unable to live independently without transitional (sometimes ongoing) assistance or support. These individuals are considered among the most significantly disabled persons in the rehabilitation system.

Characteristics of the Population

People who are deaf who are eventually determined to be "low functioning" are identified as such because of a diagnosed secondary disability or because of problems in behavior, academic achievement, language use, development of independent living skills, employment, or some other major life functioning with no known etiology. For some persons who are LFD, identification is based on standard assessment methods, which will diagnose a second disability, such as blindness, developmental disability, or other condition. For others, who have experienced some form of language, social, or educational deprivation, the identification may be based upon performance measures.

Since assessment involves a combination of standard tests and functional assessment and we do not have any standardized assessment methods to determine if a person is LFD, the risk is that service personnel without the necessary communication skills or credentials to make a differential

diagnosis will misidentify a person who is deaf as a person who is LFD. The interactive effect of communication and performance on standardized tests of achievement must be taken into consideration at each phase of identification. The language limitations of the individual completing the assessment (English vs. American Sign Language [ASL] or other language) must not be confused with the language limitation of the individual who is deaf or hard of hearing (ASL or other language vs. English).

RSA research and demonstration projects over the past several decades (1963-1998) have agreed on six characteristics that seem to describe persons who are LFD (Hurwitz, 1989; Watson, 1997; Watson, 1998a; and Watson, 1998b):

1. *Inadequate communication skills due to inadequate education and limited family support.* Presenting poor skills in interpersonal and social communication interactions, many of these individuals experience difficulty expressing themselves and understanding others, whether through sign language, speech and speech reading, or reading and writing.

2. *Vocational deficiencies due to inadequate educational training experiences during the developmental years and changes in personal and work situations during adulthood.* Presenting an underdeveloped image of self as a worker, many exhibit a lack of basic work attitudes and work habits as well as a lack of job skills and/or work goals.

3. *Deficiencies in behavioral, emotional, and social adjustment.* Presenting a poorly developed sense of autonomy, many exhibit low self-esteem, have a low frustration tolerance, and have problems of impulse control that may lead to mistrust of others and pose a danger to self and others. Because they experience difficulty in normal social interactions, many are avoided or rejected either because of socially unacceptable behaviors or because of societal attitudes and discriminatory actions toward them.

4. *Independent living skills deficiencies.* Many of these individuals experience difficulty living independently, lack basic money management skills, lack personal hygiene skills, cannot manage use of free time, do not know how to access health care or maintain proper nutrition, and have poor parenting skills.

5. *Educational and transitional deficiencies.* Most read at or below a fourth-grade level and have been poorly served by the educational system, are frequently misdiagnosed and misplaced, lack a supportive home environment, are often discouraged in school and drop out, and are not prepared for post-school life and work. Approximately 60% of the high school leavers who are deaf cannot read at the fourth-grade level.

6. *Health, mental, and physical limitations.* Many have no secondary physical disabilities, but a large number have two, three, and sometimes more disabilities in addition to that of deafness. In fact, 30% of high school leavers who are deaf had an educationally significant additional disability. These secondary disabilities range from organic brain dysfunction to visual defects. These problems are further compounded in many instances by a lack of knowledge on how to access health care and/or self-care.

Number of Persons Who Are Identified as LFD

In its 1987 report to Congress on the education and rehabilitation of individuals who are deaf, the Commission on Education of the Deaf reported (COED, 1988):

> The vast majority of postsecondary-aged deaf persons are unemployed because appropriate rehabilitation training and related services are not available.... This affects...an estimated 100,000 deaf people of all ages...due to additional handicapping conditions such as deficiencies in language performance, and related psychological, vocational, and social underdevelopment....

Proceeding to review the long history of inadequate funding and inappropriate programming provided to these individuals, the Commission recommended "that providing comprehensive regional service programs for this underserved population become the top priority for future initiatives undertaken by RSA in the area of deafness" (COED, 1988).

Population Estimates Derived from Prevalence Rates

Efforts to serve this population have been hampered by the lack of a current national census that provides an accurate estimate of the numbers of these individuals. Given this lack of hard data, the IRI Task Force attempted to generate some "educated guesstimates" based on the assumption that the prevalence of secondary disabilities for people who are deaf or hard of hearing is the same as found in the general population. If the prevalence of seven major disabling conditions as reported by LaPlante & Carlson, 1996 for the general U.S. population is multiplied by the number of people who are deaf (552,000) and, separately, by the number of people who are hard of hearing (20,295,000), as estimated by Holt and Hotto (1994), we can generate some very gross estimates for purposes of this discussion. For instance, if the prevalence rate for visual disabilities is 2.1 in the general population, when that prevalence rate is applied to the number of people

who are deaf, it yields a product of 11,592 as an estimate of the number of people who are deaf and who also have visual disabilities. Results of these calculations for various disabling conditions are presented in Table 1.1. Extrapolating from these gross estimates, we would estimate that approximately 165,000 individuals who are deaf have an additional disability.

Table 1.1—Number of Persons Who Are Hard of Hearing and Deaf Who Have an Additional Disability

Disability	General Prevalence Rate	Hard of Hearing	Deaf
Visual	2.1	426,195	11,592
Speech	0.9	182,655	4,698
Retardation	2.6	527,670	14,352
Psychiatric	3.3	669,735	18,216
Epilepsy	0.1	20,295	552
Heart	13.0	2,638,350	71,760
Respiratory	7.8	1,583,010	43,056
Total		6,047,910	164,496

Population Estimates Derived from Secondary Deaf Education Enrollment Data

Similarly, it is possible to estimate the prevalence of persons who are LFD who require specialized services using other sources of data. A good example of this approach is in the May 1989 paper prepared by the Career Development Educational Outreach Consortium, a consortium of the six federally funded postsecondary programs for students who are deaf. They estimated that each year approximately 7,800 hearing-impaired individuals graduate or leave secondary schools in the United States (See Table 1.2). These individuals can be functionally divided into three groups with varying needs for services. The lowest functioning group, those reading below the second-grade level, number about 2,000 per year. The middle group, numbering perhaps 3,500 students who read between the second- and fourth-grade level, are also not candidates for college but may be able to benefit from vocational training. Only 2,300 of these 7,800 students—those reading between grades four and twelve with an overall grade achievement of six to twelve—are considered to possess the skills required to benefit from postsecondary support services in colleges and universities that offer special programs for students who are deaf.

Table 1.2—Secondary School Leavers (7,800) (annually)

	Services Needed		
	Postsecondary	**Vocational Training**	**Comprehensive**
Number of school leavers	2,300	3,500	2,000
Overall grade achievement	6-12	4-8	2-4
Reading grade achievement	4-12	2-4	0-2
Service providers	GU, NTID, RPEPD,* 150+ colleges	VR	Private sources
Physical capacity for new students	2,500	<3,500	300
New student/client demand	2,500	<5,000	<2,000
Human resources capacity for new students/clients	2,300	<3,500	<50

Source: Career Development Outreach Consortium, 1989
*GU: Gallaudet University; NTID, National Technical Institute for the Deaf; RPEPD: Regional Postsecondary Education Programs for Deaf Students

Ironically, the bulk of resources available to meet the needs of these groups are targeted to the third group, those who most benefited from their elementary and secondary education programs who are academically prepared for college. The access needs of this group usually can be met by providing them with interpreting and notetaking services, thus enabling them to attend the college of their choice. The federally funded university programs at Gallaudet University and the National Institute for the Deaf are also viable options for the more academically capable student who is deaf. The lowest functioning group, composed of individuals who have not benefited as much from their academic experiences and who may require the most extraordinary services to successfully transition into productive jobs and independent living, is served by only a few comprehensive rehabilitation programs in the United States. Similarly, the middle group has a variety of vocational programs available but may lack the full range of support services to meet their needs.

Critical Areas for Consideration

There are four critical areas of concern for persons who are LFD: education, family, rehabilitation, and environment. These issues are addressed below.

Education

Persons who are identified as LFD are frequently educated in state schools for the deaf because they are often referred there, particularly after they have not done well in other educational programs. However, they are also served in the full range of educational programs—self-contained, mainstream, and specialized support in public schools. Special public school programs may be designed to serve students with disabilities other than deafness.

Both mainstream and specialized school programs face significant challenges in reconciling the needs of students who are LFD with the standard curriculum offered for students who are deaf or hard of hearing or students with other disabilities. When the student has a secondary diagnosis, such as developmental disability or blindness, the schools have to decide which program is most appropriate, the one designed for the hearing loss or the one designed for the other disability. Because many of the students who are LFD do not clearly fit diagnostic categories, they are frequently identified as students with nonspecific learning disabilities or as students with behavioral or adjustment problems. These educational experiences contribute to the ongoing communication problems, lack of development of formal language in either a social or academic context, poor reading levels (less than fourth grade achievement), and poor math and computation skills, and the educational outcomes ultimately become the defining characteristics of a student who is LFD.

The danger of students who are profoundly deaf being identified in public school programs as low functioning when they in fact have not had adequate opportunity to develop English skills is increased when those students attend a school that lacks expertise in serving children who are deaf. The move toward nonspecialized school services and the potential for inappropriate education programs may increase the number of persons who are LFD by creating an environment of educational deprivation.

The most critical educational issue is the lack of specialized personnel, which results in the lack of resources and support services. The concept of "critical mass" has been used to identify the

difficulty in providing optimal services for students with specialized needs. By dispersing students into many schools, no single school has the number of students needed to justify the financial burden of creating a skilled interdisciplinary team. As a consequence the students repeat the pattern of failure in mainstream primary, middle school, and secondary programs, leaving them ill prepared for postsecondary education. Often, after years of failure, these students are referred to a state school for the deaf, but it is usually too late for the language deficit to be repaired.

Upon completion of high school or leaving school, students who are LFD are often not prepared to enter the workforce. Meanwhile, due to the lack of viable postsecondary training program options, many are urged to take advantage of the "open door" policies in community colleges, starting with the colleges' developmental programs. These programs provide remedial services until students are able to participate in the regular community college curriculum. Academic-based remedial programs at community colleges are often lengthy, are not designed to teach skills to persons with very low achievement levels, are not job or career oriented, and do not lead to employment in a specific field. In addition, these programs use interpreters as the primary means of access, and few if any specialized services are available that address the needs of persons who are LFD. Furthermore, persons who are LFD often are unable to benefit from interpreter services because their language and communication deficits—the primary indicator that a person is LFD—prevent them from using standard interpreting services for communication access. Individuals who are LFD are usually unable to progress beyond the preparatory level to employment-based training at the community college. Consequently, the students in transition continue to repeat the cycle of failure begun early in their educational history.

Family

The challenge of functioning in the family is compounded for persons who are deaf or hard of hearing by the nature of their relationship within the family unit. Less than 2% of parents of children who are deaf will learn sign language. This language issue is further complicated by the fact that many persons who are LFD are from families whose first language is not English. For example, even though the overall number of students who are deaf in school programs decreased by 12%, the number of Hispanic children who are deaf increased by 28% (Harmon, Carr, & Johnson, 1998).

Families are often overwhelmed by the multiple needs of their child. The incomes of the families are more often at or below the poverty level, so options and resources are limited. Some families may have a history of interaction with government programs such as immigration (even when the family is not foreign born) or the Bureau of Indian Affairs that has led them to mistrust government programs. The nature of bureaucratic systems often places families in what seems to be a never-ending cycle of eligibility determination, diagnosis, program planning, transfers, and more diagnosis. This bureaucracy and lack of trust further complicate the ability of the family to access needed resources for their child with a disability. The history of failure within the school setting leads the family to have very low expectations of competence for the adult child in other major life activities.

Families may be unaware that with the right kinds of training, their adult offspring could be prepared for a productive life as a worker. These reduced expectations often lead to over-protection of the adult person, with little opportunity for the individual to gain new skills or make decisions. Finally, the culture of the family may create a barrier to participation because of the lack of context for programs and services for families who are not from the dominant culture. Information about programs may not be culturally accessible and may not reflect how the cultural role for a person with a disability varies in families that are Hispanic, African American, Asian, or Native American (Anderson, 1995). This perspective will influence whom families will approach for support, what and how they ask, and the range of options they will perceive as acceptable.

Unfortunately, in some instances the family is a source of damage to the person who is identified as LFD. Social problems that exist in the wider community are also present in families where a member is LFD. Substance abuse, domestic violence, child abuse, fractured and dysfunctional families may exist in this population. These problems are compounded by the financial and emotional impact of having a family member with a disability. Families may be motivated to depend upon the government financial benefits (i.e., Social Security) paid to the member who is LFD and intentionally create barriers to educational and employment achievement for the person who is LFD. While this is an important issue to note, it must be emphasized that this is not the case for the majority of families or persons who are identified as LFD.

Rehabilitation

Persons who are identified as LFD often have an additional disability that qualifies them for habilitation or rehabilitation services from mental health, developmental disabilities, or Title XIX of the Social Security Act. These are programs designed for those with disabilities such as mental illness, mental retardation, cerebral palsy, epilepsy, and other conditions. To be eligible for these programs, individuals must show documentation of both the secondary disability and the functional limitation associated with the disability.

For persons with similar functional limitations but no secondary diagnosis, the State-Federal Vocational Rehabilitation Program is often the only resource for postsecondary services or rehabilitation. Although it is federally funded, the VR program is implemented by the states and territories in a diverse manner. Some states have policies or management attitudes that are not supportive of effective programs and services to persons who are LFD. They may pay for placement only; prohibit use of out-of-state programs with expertise in serving individuals who are LFD; have a bias against providing comprehensive services (often based upon cost considerations); limit skills training in independent living and other services; emphasize short-term solutions of placement without long-term support; and have a bias that the only valuable postsecondary programs are college programs.

To create a responsive service system, VR should consider making adaptations for persons who are LFD when considering costs of services, expectations of staff productivity, and recidivism to the system. In addition, VR should coordinate the comprehensive resources required to ensure successful VR participation and employment of persons identified as LFD.

Environment

The negative experience of being identified as a failure in the educational system leads to the perception that the individuals identified as LFD are not capable of employment or independent living. The failure cycle is further perpetuated by the lack of skilled professionals and specialized programs capable of providing the training, services, and supports needed for success. This environment continues dependence on government income support programs such as Social Security. The life experiences of individuals who are LFD and the failures of the system may require them to return to the VR program for additional services and employment placement during the course of their adult lives.

Persons who are LFD frequently have low social status within the Deaf community due to their often idiosyncratic communication styles or lack of social skills. These individuals may require communication intermediaries who can elicit information and interact in social as well as programmatic settings.

Finally, programs that are not designed specifically for services to persons who are deaf, such as Centers for Independent Living, mental health, and programs for persons with developmental disabilities, frequently mistakenly believe that full access to services and supports can be effectively provided through the use of interpreters. Although interpreters are a critical means of access for persons who are deaf, persons identified as LFD often are unable to use interpreters and instead require direct communication with service personnel for all services and supports. Programs that use only interpreters do not meet the standard of accessibility required to develop individual plans where choice and informed consent standards are met (Rehabilitation Act, as amended in 1998).

Communication and Language

The defining characteristic of individuals who are LFD is that they have inadequate communication skills as a result of a secondary disability (mental retardation, brain injury) or of deprivation in social development or education. Persons who are born deaf with no other disability and who have not been given the opportunity to develop language become low functioning. The lack of formal language results in developmental deficits that cannot be fully resolved by education or training. Poor or no language skill creates a barrier to the acquisition of other critical academic and social skills required for employment and independent living.

American Sign Language and English

Distinctions must be made between communication and language skills, and between ASL skills and English proficiency. Persons who use English or other spoken languages as their means to communicate with others do not fully understand the nature of signed languages such as ASL. These are not communication systems but language in its most academic meaning. The lack of understanding that ASL is equal to English in communicating abstract ideas has continued to lead to the misidentification of persons who are deaf who use ASL as low functioning. Professionals who do not have adequate ASL skills misunderstand the language skills of persons who are deaf; they then perpetuate a cycle of misdiagnosis and deny access to services based upon these

professional errors. This circumstance is further complicated by a lack of tools to assess ASL competency by persons who are deaf or hearing. Persons who have excellent skills in the vocabulary, grammar, syntax, and pragmatics of ASL may have very poor English reading and writing skills. Skill in ASL will not automatically lead to skill in English. Persons who use English coded in ASL vocabulary will not automatically be able to use the language of ASL and vice versa.

American Sign Language and Communication Methods

Persons who are deaf who have language deficiencies and do not use ASL often develop their own methods of communication. These methods vary along a continuum from adapted signs that use ASL vocabulary but without proper grammar or syntax to invented gestures or "signs" that hold meaning only for persons who are LFD and for those who interact with them and know the meanings of the codes. These methods are not language in the same sense as a formal language such as ASL. Some individuals who are LFD do not have consistent communication methods. Persons who know the individual who is LFD well are able to engage in two-way communication by a process that combines labels, prior knowledge of persons or events, signs, gesturing, pantomime, use of physical objects, and demonstration to convey meaning. This process is inaccurate, impractical, and time intensive, with frequent opportunities for misunderstanding.

For these reasons, an individual, person-centered assessment is needed for people who have been identified as LFD or are at risk of being LFD. The professional or paraprofessional working with the individual who is LFD must be able to determine if the person is using ASL or an individual-based method of communicating. The staff person must then learn the communication method. Individuals who have the language skills to make the determination of sign language use include the following professionals or paraprofessionals:

- *Interpreters.* Interpreters certified by the Registry of Interpreters for the Deaf or by the National Association of the Deaf who have specialized training or experience with individuals who are LFD cannot guarantee that these persons will obtain full communication access to programs and services, but they can assist in establishing whether the individuals are using ASL to communicate.
- *Certified deaf interpreters or relay interpreters.* Individuals who are deaf who have skills in both ASL and English may be able to assist in determining the nature of the communication system being used by individuals who are LFD. They can serve as

communication intermediaries between the hearing person, the hearing interpreter, and the individuals who are LFD.

- *Communication intervenors or support service providers.* These individuals are trained in communication systems used by persons who are deaf-blind, such as print on palm, tactile systems, and hand-over-hand ASL, and they have the skills needed to observe and learn the home sign systems of sighted and blind persons who are LFD.
- *Professionals or paraprofessionals with ASL skills.* These individuals are most often deaf themselves, with training at a paraprofessional level in human services or at a professional level in counseling, education, psychology, or a similar field. They would either have certification from the Registry of Interpreters for the Deaf or a rating from the Sign Language Competency Proficiency Interview.

2 Assessment and Casefinding

Identifying and casefinding persons who may be LFD and assessing them for the purpose of planning service programs do not fit into discrete categories. For this reason, the issues are addressed together in this chapter.

Identification of the Person Who May Be LFD

As stated in chapter 1, a person who functions as LFD may be identified as such because of a secondary disability, such as a developmental disability, or because of language, social, or educational deprivation. Here are some issues to consider in diagnosing and casefinding those who may have a secondary disability or who are at risk for deprivation that may cause functional limitations:

- *Adequate medical or psychological diagnosis of the secondary condition.* In settings where children and adults who are deaf or hard of hearing are served, there is a critical need for screening for other conditions such as developmental delay, vision loss, physiological problems, or psychological problems. Individuals with hearing loss who perform below the norm should have access to diagnosis for other conditions.
- *Adequate educational diagnosis for learning delays for individuals who perform below the norm for persons with hearing loss.*
- *Adequate hearing screening for persons with other disabilities, such as developmental disability, blindness, or mental illness, to identify the potential for hearing loss.*

- *Analysis of the interaction of hearing loss with the primary disability or the interaction between the secondary disability and hearing loss.* The diagnostic and identification issues for persons who are designated as LFD due to deprivation relate not only to performance within educational or community settings but also to other risk factors that are highly correlated to being identified as LFD (Long, Long, & Ouellette, 1993). For example, a child deprived of language development from birth is more likely to be misdiagnosed as having a learning impairment or mental retardation and is less likely to receive education appropriate to a child who is deaf or hard of hearing. This often begins the long cycle of developmental delay from which the person never "recovers" and becomes "low functioning."
- *Membership in a minority community.* Deafness and severe hearing loss interfere with the ability of persons to communicate in the environments where they live. The use of languages other than English in the home can further complicate the communication environment for children. Persons with hearing loss from families where English is not the first language may be more likely to function as persons who are LFD.
- *Residence in an inner city or low-income area.* Such residence is often associated with lack of language development opportunities, delayed diagnosis of hearing loss, and poor services and educational opportunities.
- *Residence in a highly rural community or Indian reservation.* These types of communities are associated with poverty and limited diagnostic, medical, and educational resources. This environment may result in late diagnosis of hearing loss that in turn creates a delay in language development. Residence in such communities also reduces the likelihood of interaction with other people who are deaf and access to trained professionals to assist in the diagnosis and program planning at the time of identification.

Late identification of hearing loss can delay an individual's language development, and it may not be possible to recover from this delay later on. Late identification of other disabilities with deafness also delays the adaptations and services needed to ensure the acquisition of language, education, and other life skills.

Casefinding

Strategies for "casefinding"—bringing individuals who are LFD into the VR system—include outreach to programs serving persons with other disabilities, work within the school systems to

provide early transition support, and networking within minority communities. State Department of Education "Child Find" programs are also resources for referral.

Since the risk factors for a person to be identified as LFD include membership in minority communities or families where English is not the first language, special consideration must be given to outreach to these groups. Techniques that are effective in minority communities have been identified in other documents, such as the 23rd IRI document on serving traditionally underserved persons. Critical to successful identification and relationship building are awareness of the interaction of the culture of the family and the individual with a disability; respect for the differences in roles, relationships, and hierarchy in minority families; understanding of the role of religion, community structures, tribal customs, and the use of language in referring to a person with a disability; and adequate language and assessment skills.

Assessment of Persons Who Are LFD

A number of resources can be consulted on assessing persons who are deaf or hard of hearing. The assumption for persons who are LFD has been that standard methods are ineffective in providing useful assessment information.

The goal of assessment of LFD persons is *not* diagnostic. The diagnosis is another phase of identification and is related to determining the presence of a secondary disability. The assessment is also usually not an evaluation in the traditional sense of the term. The person who is identified as LFD will probably score significantly below average using standard evaluation methods. Assessment of this population should not be a screening device. The assessment approach should not be designed to create a benchmark so as to exclude the person who is LFD from participation in employment or independent living programs. The assessment should not be developmental or predictive in nature. That is, the assessment approach should not create a prerequisite for participation, nor should it attempt to predict a future outcome as a consequence of the assessment. Finally, the assessment approach should not be deficit-based. The designation of LFD means that the person already has deficits in the performance areas identified.

The goal of assessment for this population should be to determine the propensities of the individual—that is, to identify the skills that the person has and train to that skill. The assessment should be transactional, meaning that the person who is LFD will change as a consequence of interacting. The assessment should define strengths and weaknesses and develop

an approach that is "ecological." The person being assessed is looked at as a whole person and across all of the environments where he or she will function.

Vocational assessment can be viewed as having three levels:

1. Screening
2. In-depth interviewing combined with background analysis
3. Comprehensive assessment

Given the current presumption of eligibility for rehabilitation services, it is important to consider how the evaluation process can serve to reinforce eligibility and not to negate it. The goal is to determine what supports—personal, situational, technical, economic, etc.—are or need to be set in place to help the individual who is LFD go to work. This calls for a variety of tools and nontraditional approaches to the evaluation.

Screening

Screening as defined in this section refers to measurement against a particular standard—for example, vision, hearing, or drug screening to determine the absence or presence of a specific trait or substance. Screening is *not* done to screen people into or out of a particular program of services. Some screenings like height or weight measurement do not require active participation by the individual and are minimally affected by the level of the person's communication skills, education, or inculturation. Another example is evoked response audiometry, as all the person does is remain still while the audiologist records how the brain responds to sounds. Other tests like the tumbling E Snelling Eye Chart are easily administered and are relatively free of educational or cultural bias.

Interviewing

The second level of assessment, interview and analysis of background information, requires a highly skilled professional evaluator. The professional must be proficient in the individual's preferred mode of communication, be it a variation of ASL, a home gestural system, or a combination of signs with some spoken words. The interview lasts for several hours, usually over a period of a few days.

This type of one-on-one interaction can be done effectively only with a credentialed professional who has the prerequisite communication skills and does not rely on an interpreter. The professional needs to be able to understand the many subtle cues that are lost in translation or interpretation, regardless of the skill level of the interpreter. Additionally, the evaluator must be able to review information with a critical eye, and this calls for an understanding of the life circumstances of the individual and how these affect his or her current level of functioning. Many subtle or overt bits of data may be accurate or quite inaccurate. The evaluator, then, will have to review not only the professional credentials of the other reporting professionals but also their competencies and the settings in which they assessed the individual who is LFD. For example, an evaluator may have a psychological report on a person who is LFD. If the person who is LFD is from the state school for the deaf, then the report from the school psychologist is more likely to be accurate. If a similar report is prepared by a psychologist from a community agency and the psychologist has no experience with this population, then the results are more suspect. This is just one of many examples of the need to have a very well-trained, experienced, and critical-thinking professional evaluator.

Comprehensive Assessment

In the third level—comprehensive assessment—the tools of the evaluator are brought into play. The traditional tools include psychometric tests and work samples. For additional information on tests, refer to Watson (1977, 1979), Watson, Anderson, Marut, Ouellette, & Ford (1983), Zieziula (1982), Stewart (1985a, 1985b), or Stewart, Saura, Smith, & Ouellette (1993), and for information on work sample systems, see Sligar (1983). Reiman, Bullis, and Davis (1991) look at evaluation and program planning from the perspectives of the individual and the system. For assessment of persons who are LFD, the primary tool has to be the systematic observation of their performance in their natural environment. The process by which they were identified as LFD already attests to the fact that traditional evaluation tools like work samples or psychometric tests have not worked when used in the traditional way. The bottom line is that too often a person is assessed out of jobs and not into work. Commercial work samples or tests can be used as a means for observation of behaviors, but the scores are often meaningless and may do more harm than good when reported.

By far the best tools are environmental in nature, allowing the evaluator to observe typical behavior. Situational assessment in a sheltered employment setting is used as an observational tool. While more natural than a work sample or test, it is still limiting, as the work performed

may not be appropriate for the individual and other factors in the environment are artificial (the very nature of sheltered is artificial). Another approach calls for the evaluator to go into the person's world. This approach presents opportunities for observation of problem-solving skills, routine daily activities, and various ways of communicating. Natural supports may already exist in the individual's environment to facilitate success. Probably the most frequently used tool in this area is trial work. A detailed case study is presented in appendix 3 to provide a more comprehensive overview of the tests and procedures that might be used in the assessment of communication skills in an individual identified as LFD.

The picks and shovels available include checklists and observational forms. Several pioneering efforts to develop communication observation forms and checklists for individuals identified as LFD were conducted by Watson (1977, 1979) and Peterson (1978) through an RSA-funded demonstration project at the Crossroads Rehabilitation Center. Those prototype tools were later adapted for a rating scale focused on workplace communication situations: "Assessing Workplace Communication Skills with Traditionally Underserved Persons Who Are Deaf" (Long, 1996). This scale emphasizes instructions, signs, information, and safety—all needed by the individual to obtain or maintain employment. The assessment is done via interviews with the individual, employer, family, and others who may have information to share. Interviews are combined with an observation of the individual working on site so the evaluator can identify the essential components of communication as well as natural supports. A similar approach is used in the "Functional Living Skills Assessment for Traditionally Underserved Persons Who Are Deaf" (Long & Kaskel, 1996), in which reports from the individual and others as well as direct observations are combined to look at a much broader topic, independent living skills. Both assessments also look for the individual's preferences related to communication or independent living.

Several comprehensive studies have been conducted over the past decade to identify and compile a listing of independent living curricula, which include some informal measures of assessment. These include national survey findings reported by Boone and Johnson (1988, 1990) and Larew (1995). Other checklists and instruments are available, all focusing on natural community-based evaluations.

Assessment Methods Used

The Rehabilitation Act, as amended in 1998, and the Workforce Investment Act (WIA) provide an opportunity to review the methods that have been used to evaluate persons who are LFD. Rehabilitation professionals have relied upon assessments designed to determine eligibility and to "screen out" those with the most significant disabilities as not having a reasonable expectation of employment. The new Amendments to the Rehabilitation Act place more emphasis on presumption of benefit, including requirements that the State VR Agency more thoroughly explore the abilities, capabilities, and capacity to perform in work situations. This exploration is accomplished through trial work experiences with the use of appropriate support. The Act further states that such experiences must be of sufficient variety and over a sufficient period of time to determine eligibility (see appendix 1 for WIA of 1998).

A person-centered planning approach can be an effective tool for assessing persons with the most significant developmental disabilities. This approach has been used by the Helen Keller National Center and other community-based rehabilitation programs (see Watson & Taff-Watson, 1993) for use with persons who were deaf-blind, and the Community Outreach Program for the Deaf has used this approach with persons who are LFD. This approach is best described by contrasting the perspective of the traditional system-centered approach with a person-centered approach (see Table 2.1).

One version of this method to achieve an employment outcome includes the following components: developing an individual profile, describing the ideal setting, scanning the environment, performing a discrepancy analysis, and program planning. This approach is person-centered, using the ecological and functional method.

Table 2.1—Person-Centered Versus System-Centered Approach

Person-Centered	System-Centered
Values individuals	Focuses on labels
Identifies capacity and gifts	Identifies deficits
Knows the person	Emphasizes standardization
Builds on knowledge from the person	Depends on professionals and reports from family and those who know the person best
Sees the person as part of a community	Sees the person as part of a system
Brings people together	Separates by emphasizing differences

Individual Profile

The individual profile can be gathered through an interview with the individual or with others who have knowledge of the individual. Family members play a critical role in this process, and once again culturally sensitive approaches with the family are of prime consideration. The profile is designed to provide information in the following areas:

- *Demographic information*
- *Medical information:* Hearing loss and other disabilities/physical capacities/health needs
- *Residential/domestic situation:* Where the person lives now
- *Family support:* Relationships, friendships, how the family can avoid the use of "professional" systems
- *Community supports:* How neighbors, extended family, church members, coworkers, service personnel (bus drivers, store clerks) create natural relationships and support
- *Preferences and choices:* How the person expresses autonomy needs, likes, dislikes
- *Current method of communication/language:* How the person expresses and receives information
- *Knowledge/experience in domestic area:* Skills in daily living; supports needed
- *Knowledge/experience in vocational area:* Skills in employment; supports needed
- *Educational background and skills:* What skills learned in school can be used
- *Psychological information/behaviors:* What works, what does not work, when behavior is really communication
- *Mobility:* How the person navigates in various environments
- *Future planning:* Dreams for the future; hopes, fears
- *Connections:* Life experiences of the person and family
- *Respect:* Barriers to community acceptance
- *Employment or work-related experiences that may identify other skills*
- *Knowledge/experience in leisure/recreational areas:* How the person occupies his or her free time

This profile provides a summary of the individual with an emphasis upon choice and planning for the future. Conducted this way, the assessment becomes a goal-oriented document with an identified outcome rather than a stagnant support of a negative label.

Description of the Ideal Setting

To further define the goal, the ideal setting for the individual can be described. The setting includes the four major life function areas: vocational, community, social, and domestic. This description provides the basis upon which future program services and supports are developed.

Environmental Scan: Mapping

A technique known as "mapping" can be used to identify opportunities for employment, development of independent living skills, and social interaction within the setting where the person currently lives or wants to live. Mapping is a simple technique where the person completing the assessment uses the home of the person being assessed as the centerpoint of a "map" and then, using ever-widening concentric blocks, from that point identifies the employment, social, educational, recreational, religious, or other target domain opportunities. The result of this exercise is an inventory of opportunities for skill development within the environment of the individual being assessed. The purpose of this part of the assessment is to maintain the goal orientation of the assessment while establishing some congruence between the ideal situation for the individual and his or her current life situation.

Discrepancy Analysis

For each location or setting where the person wants to function, an analysis is conducted to determine the "discrepancy" between the ability of the person to perform the tasks required of the setting and the skills required to be successful in the setting. An analysis of each task is completed as a "typical" person would perform the task. The person who is LFD is then asked to perform the same task. The difference in how the task is performed is that discrepancy. This is used to determine which skills to teach. If the person's disability precludes his or her ability to learn the task (e.g., use a sound alarm clock to wake up), strategies of adaptation (use a light alarm) or support (have a family member wake him or her up) are identified as alternatives. The number of discrepancies, the ability of the person to learn a skill, and the cost and type of adaptations and supports needed are used to determine the appropriateness of the "fit" between the ideal setting and the setting being evaluated.

It is important to note that the location is evaluated in relationship to the person rather than vice versa. This way, the person is not set up to "fail" a setting.

Program Plan

For each location or setting where the person wants to function, a plan is developed to ensure that the individual will be able to achieve his or her goals. Three types of strategies are used. The individual may participate in a skill-training plan to acquire the skills if capable of doing so. Some aspects of the person's disability may prevent him or her from performing the task in the "typical" fashion. In this case, the strategies of adaptation or support will be employed. The assessment process will identify the adaptations or supports required for the person to function in the environment. An example of an adaptation would be a visual signal to replace an auditory signal in a work setting or a relay interpreter to assist in interpreting written material.

Trial Work Assessment Strategies

Since its goal is employment, the assessment should include methods to identify and achieve the employment goal at the initial phase. Trial work and place-then-train strategies that meet this criteria are job prospecting, use of natural supports, use of mentors who are deaf, and professional and paraprofessional supports.

Job prospecting (Callahan and Associates) uses the ideal work setting described in the assessment process as the basis for the job placement strategy. The mapping exercise in the environmental scan provides information on where to look, and the individuals listed in the profile as community supports can assist in the placement process. The goal of employment and training within the employment setting is emphasized. This training can perhaps be accomplished through mentors who are deaf if the employment site has a worker who is deaf as a natural support. If not, then paid staff who are deaf and have the skills needed for effective, direct communication with the individual are preferred over the use of interpreters. On-site job coaching is essential, and long-term support strategies can be identified at the assessment and program-planning phase rather than at the end of the process.

Language and Communication Assessment

The interactive effect of communication and language on the diagnosis and assessment of persons who are LFD cannot be overstated. One of the defining characteristics of persons who are LFD is poor language and communication skills. The unique challenge in determining these deficits is the lack of valid assessment methods for ASL. Currently, no assessment methods establish a language competency for ASL users that parallels a similar assessment in a spoken language.

There is an acute shortage of professionals in rehabilitation or related fields who can determine the functional level of persons who are deaf who use ASL or some variant of ASL as their means to communicate.

Beginning in 1994, ASL bilingual specialists began researching the use of ASL in language and communication assessment (Harmon, 1997). This involved developing and adapting the Foreign Service Institute (Bartz and Schultz) rating known as the American Sign Language Dialogue Communication Assessment. This work was done in collaboration with an RSA-sponsored service center project for persons who are LFD funded by the Office of Special Education and Rehabilitation Services (OSERS) at the Community Outreach Program for the Deaf. This tool was designed to rate the use of ASL in four areas: fluency, comprehensibility, quantity of communication, and quality of communication. The intention of this measure is to determine competence in ASL prior to initiation of ecological-based communication (not language) procedures, as was discussed earlier in this section. Although these instruments are valuable tools, there is a critical need for additional research and development of methods in language assessment for persons who are LFD. Until such tools are available, effective casefinding and assessment will continue to present serious challenges to the field (Harmon, Carr, & Johnson, 1998).

Recommendations

1. Consider using casefinding techniques already used with other underserved or unserved groups, as outlined in the 23rd IRI. These techniques all hinge on building a strong relationship with the leaders of the community.
2. The traditional tools of assessment have proven to screen persons who are LFD out of and not into jobs. Therefore, consider using ecological-based assessments as an evaluator tool to determine the truest picture of the individual.
3. The goal of the assessment process should be to develop a profile of the person using a person-centered approach and not one based on system needs.
4. The use of performance of tasks in real work environments is a more accurate measurement of ability than simulation-based or standardized methods. The use of on-the-job or trial work assessments should, therefore, be considered to accomplish this type of evaluation.
5. The skills of the evaluator are one of the most critical parts of this assessment process. To be effective in evaluation of individuals who are LFD, the evaluator must have a knowledge of ecological-based assessments, the work done by the individual who is LFD, communication skills, and experience with a wide range of communication modalities.

3 School-to-Work Transition

Citations and Definitions

The provision of transition services is an important concept in major legislation regarding people with disabilities. The Individuals with Disabilities Education Act (IDEA), as amended in 1997, and the Rehabilitation Act, as amended in 1998, both clearly identify transition services as integral to achieving desired outcomes for people with disabilities.

Under Definitions, in Part A, Section 602(30) of the Individuals with Disabilities Act, as amended in 1997, transition services are defined as a coordinated set of activities for a student with a disability that

(A) Is designed within an outcome oriented process, which promotes movement from school to post-school activities, including postsecondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation;

(B) Is based upon the individual student's needs, taking into account the student's preferences and interests; and

(C) Includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation.

Under Definitions, in Section 7(39) of the Rehabilitation Act, as amended in 1998, transition services are defined as

> a coordinated set of activities for a student, designed within an outcome-oriented process, that promotes movement from school to post-school activities, including postsecondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation. The coordinated set of activities shall be based upon the individual student's needs, taking into account the student's preferences and interests, and shall include instruction, community experiences, the development of employment and other post school adult living objectives, and when appropriate, acquisition of daily living skills and functional evaluation.

While these two definitions appear to be nearly identical, the definition of transition services under IDEA includes the concept of *related services*, thereby broadening the potential realm of services delivered. For the LFD population, related services might include communication skills training, therapeutic recreation, rehabilitation counseling, and transportation. However, it is clear in both laws that services must be provided to ensure a seamless process between the delivery of services from the educational system to the adult service provision system. It is understood that both education and VR have a major role in the provision of transition services for individuals who are LFD. In the most basic and most important of VR documents, the state plan, the provision of transition services must be delineated. Section 101(11)(D)(i)(ii) of the Rehabilitation Act, as amended in 1998, requires the state plan

> to contain plans, policies, and procedures for coordination between the designated state agency and education officials responsible for the public education of students with disabilities, that are designed to facilitate the transition of students with disabilities from the receipt of educational services in school to the receipt of VR services under this title, including information on a formal interagency agreement with the State education agency that, at a minimum, provides for
>
> - Consultation and technical assistance to assist educational agencies in planning for the transition of students with disabilities from school to post-school activities, including VR services. Consultation and technical assistance would include providing information about the local employment community to educational staff as a

means to link the educational system to employers, which could result in a more practical curriculum and more positive employment outcomes;

- Planning by personnel of the designated state agency and educational agency personnel for students with disabilities that facilitates the development and completion of their individualized education programs under section 614(d) of the Individuals with Disabilities Education Act (as added by section 101 of Public Law 105-17)....

The Rehabilitation Act, as amended in 1998, further reinforces the mandate for coordination of education and vocational rehabilitation services in Section 101(a)(ii)(D)(iii)(iv), wherein an interagency agreement between the State VR Agency and the State Educational Agency is mandated to

- Contain the roles and responsibilities of each agency
- Include provisions for determining lead agencies and qualified personnel responsible for transition services
- Include procedures for outreach and identification of students with disabilities who need transition services.

It is important that students who are LFD are specifically provided for in these agreements to ensure provision of appropriate transition services.

The recognition that transition is an important process is certainly not new. In 1967, the National Conference for Coordinating Rehabilitation and Education Services for the Deaf addressed transition. The fundamental premise was that planning of school-to-work transition efforts for students who are deaf is likely to be more effective if cooperative initiatives have been established between the school and the State VR Agency (Watson, 1998c).

Transition of Students Who Are LFD

A coordinated effort to help people with disabilities go from educational and related services to adult, postsecondary, and/or employment services is a priority. Particularly with the LFD population, the role of rehabilitation must be aggressive in order to ensure that services are in place that will result in positive employment outcomes. For State VR Agencies, the mandate to

coordinate transition services involves a significant percentage of eligible consumers of VR services. In 1997, as a national average, over 15% of consumers of VR services in active status were under the age of 22. Although this percentage is significantly higher in some states, many states do not recognize the need for early intervention. Therefore, getting individuals who are LFD from school to work or from school to independent living must be seen as a major component in improving the service delivery to the population. Those services, however, must be carefully considered and crafted to meet the individualized needs of the consumer who is LFD.

Communication ability, vocational skills, independent living skills, academic achievement, and social skills must be considered as students prepare to leave school and enter adult life. The strength or weakness of the individual who is LFD in each of these areas must play a significant role in the way education and VR fashion services for him or her.

The fact that only 15% of the VR consumers are under the age of 22 indicates that much remains to be done in the area of transitioning. IDEA requires transition planning activities to begin when a student in special education reaches the age of fourteen. Some states have legislated an earlier start time for transition services and, as a result, effective coordination between education and VR has improved. However, even in those instances, the full impact of high-quality transition services has not been realized. This is due in part to insufficient human resources in both the school system and the adult service delivery system. Since transition becomes part of the individualized educational program (IEP) process, all the necessary parties—parents, students, school staff, evaluators, VR counselors, and others—should be in attendance.

While transition is important for all students with disabilities, it is especially critical to the LFD population, which does not possess the academic achievement levels needed to pursue post-secondary education. A study conducted by the Gallaudet Research Institute (Allen, 1994) points out that 49% of the non-college-bound youth surveyed were unemployed at age 23 and under. For that same group who were over 23 years old, 39% continued to have no work. Typical jobs held by this group were kitchen worker, clerk/typist, packager/laborer, janitor, and assembler. With competitive employment being the desired outcome for the VR consumer, an unfortunately large percentage of individuals who are LFD are not being reached. It is generally understood that in providing educational and VR services to the Deaf community at large, most of the resources are directed to services for the higher achieving individuals. For example, a substantial percentage of VR dollars is invested in students who are pursuing academic coursework at the postsecondary level. Both the educational system and VR must give equitable

attention to all students who are deaf regardless of their perceived functioning level. While effective transition services will not necessarily mean success in each instance, they will certainly improve the overall delivery system and give greater opportunity to individuals who are LFD to become productive in their communities.

Research on transition of high school students who are deaf conducted by the University of Arkansas (Watson, 1995; El-Khiami, 1993; Anderson & McGee, 1996, 1997) indicates that approximately 85% of a national sample of young adults who were deaf were receiving services from their State VR Agency within one year of high school graduation. These studies were designed to determine actual postsecondary activities students who were deaf participated in compared with their plans at graduation. While the actual activity did not differ greatly from plans, it is significant to note that over 40% of the school leavers who were deaf were not pursuing additional academic training. While statistics are not available, it is commonly understood that students who are LFD would *not* be entering postsecondary education at a greater rate than the typical student who is deaf. Consequently, it can be concluded that the great majority of students who are LFD require more intense transition planning for other than academic postsecondary activity.

Family Roles

For a variety of reasons, some families may be hesitant to participate in the transition process. For purposes of this discussion the family means those individuals who have been involved with the student over a period of years and have provided the kind of support system that would be expected from those individuals most involved with the student. It is the role of the transition team, including educators and VR counselors, to encourage families to become actively involved. Too often, families feel like outsiders. When the consumer has been a student at a residential facility, families may be accustomed to letting school personnel make and carry out decisions. As students age out of school, families may feel overwhelmed by the idea that the school is no longer able or willing to act in a caretaker role and that they now have a much stronger role to play than they may have had in the past.

When working with families on the transition team, it is necessary to explain the differences between the educational model, which is an entitlement program, and the State-Federal VR Program, which is based on satisfying eligibility criteria. When students are in integrated settings, family members may feel that they do not have the expertise to help in the decision-making

processes that must occur during transition planning. Rehabilitation professionals must recognize and encourage the vital role that family members can play during this critical time. Helping family members understand their role is crucial to the success of the transition process.

Family members should be included in the transition planning process as early as possible. Since the needs of individuals who are LFD are often complex, transition planning should ideally begin in elementary school to help the family start to think about goals and realistic living and working options. Frequently, however, transition planning does not begin until the teenage years. At this point, many families begin to face the reality that the school is not going to provide services forever and that discussions regarding next steps must take place. Although counselors might not open a case for students who are age fourteen, they can still link families to community resources.

There are several areas in which family members can and should play a major role: ensuring appropriate follow-through on the programming decisions that have been made; providing emotional support through sometimes difficult changes from the known to the unknown; and providing or assisting in services related to housing, recreation, and socialization. Even in assisted living and group home situations, the family can provide transportation, religious opportunities, and social outlets for the individual who is LFD. When the consumer who is LFD lives at home, the family may be the primary resource for providing independent living skills training. In almost every situation, the family is key to making most aspects of transition successful. The coordinated efforts of the staff in the educational setting and VR professionals can give the family the support they need (Watson, 1995).

In some instances, for a variety of reasons, the family is not present or does not accept its role in the support and advocacy for the student who is LFD. Frequently in those occasions community resources and other support systems need to be brought into the transition process. To ensure that the interests of the student are represented at the IEP meeting, the multidisciplinary conference, and other staffings, these resources should be available and serving in place of the family.

Roles of Education, VR, and Other Delivery Systems

Transition planning has been legislated because the collaborative efforts of the different players should result in more efficient, seamless service delivery and better outcomes. There are many elements of transition, including employment, housing, recreation, independent living, and community integration.

Some educational initiatives developed at the federal level are effective tools to assist with the transition mandate. For example, funds have been made available to states to provide school-to-work or education-to-careers activities to students. These hands-on approaches to education allow students to go into their communities and experience a true work environment.

Three main issues appear to underlie the increased national interest in and support for school-to-work programs. First, many schools cannot keep pace with the changing employer needs and expectations of future workers. Second, because of the historical separation between schools and the workplace, students generally have limited opportunities to interact with adult mentors in a workplace setting. Third, many schools focus most of their resources on helping students prepare for enrollment in college rather than employment after high school (Bailey, 1995).

For transition to be most effective, it must begin before high school. This creates new challenges for the VR counselor, who routinely does not become involved with individual students until closer to graduation. The VR counselor should attend IEP meetings as early in the educational process as is feasible, to provide the vision of the adult service delivery system as well as to establish the planning base from which career decisions will be made. The counselor possesses a wealth of knowledge about adult services, other public agencies, community providers, available support services, employment trends, career planning information, and resources on housing. Equipped with this information, families can begin a deliberate planning strategy for their family member who is LFD.

The counselor should also serve as a referral source for families. This means more than giving names, addresses, and phone numbers; the counselor can serve as the intermediary between families and community programs by making contacts and arranging appointments. Although the VR counselor should not be overly patronizing, this assistance should be provided with the realization that many families are overwhelmed by the prospect of engaging such a complex system of services.

Parents of younger children who are just beginning the transition process generally have a common need for general information. As students begin to develop defined career paths, parents require more specific information. The VR counselor should consider larger group meetings in which to share the general data. Such group activities can be accomplished at career fairs, PTO organization meetings, family learning weekends, and other occasions.

Schools have an overwhelming responsibility in preparing students with disabilities for adult life. While the school maintains very specific responsibilities for students in special education until a diploma is awarded or until age 21, whichever comes first, its focus must not be upon that milestone but on the ultimate outcome (meaningful employment, independence, and membership in the community) for each student. Therefore, through the IEP process, very specific services designed to satisfy very specific needs must be provided. With this goal in mind the educational system has a strong role to play in preparing the student for employment. Schools should begin introducing the concepts of work during the elementary school years of the student. Work-related activities that must begin early include occupational information, career guidance, vocational sampling, and work site visits.

For the LFD population, traditional academic curricula are ineffective because they utilize systems and strategies in which the student who is LFD is disadvantaged. Standardized achievement tests, language-based aptitude tests and interest inventories, written placement exams, and other tools that depend heavily upon language skills are minimally effective with students who are LFD. Alternative, function-based methods for evaluating, programming for, and placing students should be substituted. This means programming in a way that maximizes the transference of skills. A prime example of this is to provide the student who is LFD with community-based instructional programming that allows for actual work experience and to give school credit for that activity. This work experience would be in place of a language-based curriculum requiring the student to read, research, and write a report on various careers. By receiving several different work experiences first hand, the student who is LFD can make informed career choices. While this may be more easily accomplished in a residential program, where the number of individuals who are LFD would be greater, it should be considered for any student who is LFD, regardless of the educational setting.

Schools must also address the development of other skills necessary for successful transition into the community. Many students who are LFD lack the skills to live independently. Such skills include the very basic activities of self-care, hygiene, budgeting, bill paying, menu planning, meal preparation, managing an apartment or home, recreating, and advocating for oneself. Additionally, emphasis must be placed on developing social skills. Many individuals who are LFD are naive about social practices, subtle nuances, developing and maintaining appropriate relationships at work and elsewhere, getting along with others, and developing appropriate social behaviors. As stated above, instruction in these areas should be practical and hands on. Simulated learning activities should be utilized, with real experiences being available as well. Students who are LFD

should have the opportunity to experience apartment living when appropriate in order to develop skills needed for future adult life.

School and VR personnel should cooperatively design as many strategies as possible to introduce the student who is LFD to work experiences. While work study programs are important and valuable to the student's learning of basic work skills, the number of work experiences is limited, and the student does not routinely become exposed to a variety of occupations, which is essential for making an informed choice. Other career information strategies can enhance a core work experience program. Job shadowing is an excellent tool to expose students to a number of occupations in a short period of time. If the community work experience proves to be a good match and one with which both the employer and student are satisfied, consideration should be given to approaching the employer about converting the training activity to employment once the student leaves school. There are several strategies to make this a reality, including on-the-job training, supported employment, or other VR-subsidized activities that result in a commitment from the employer.

Through job shadowing, community employers allow students to be at the workplace observing and assisting employees with a variety of tasks. If, for example, a student is interested in working as a nurse's aide at a hospital, school staff and the VR counselor would arrange for the student to job shadow with an aide for one to several days. During that experience, the student would be exposed to other jobs in the hospital environment. Through the experience, the student who is LFD may determine that working with people who are ill is no longer of interest. Consequently, shadowing in another occupational field would be made available. Job shadowing should be focused on the occupational fields the student is interested in or has a strong aptitude for.

As the student who is LFD approaches graduation, the VR counselor should have already opened a VR case file. The counselor is then able to provide a variety of diagnostic and planned services. To enhance the experiences provided by the educational program, the VR counselor should provide additional opportunities for career exploration. Common strategies would include summer experiences. On-the-job evaluation and on-the-job training should be routinely utilized for individuals who are LFD. If at all possible, those experience should be with an appropriate role model. This proves to be a very effective strategy, since the individual who is deaf can provide intense mentoring to the student. Again the experience would be direct and hands-on, and the learning would be experiential.

Vocational camps should be sought out to give experiences in the career fields in which the student has expressed an interest. Such camps are usually designed to serve a specific homogenous group. Tutorial assistance should be available for students who need the additional support.

A significant number of individuals who are LFD would benefit from several of the traditional training programs. For example, basic job skills training, job retention training, and job readiness training could all be beneficial if the appropriate modifications were made. Again, direct, hands-on, real and virtual work experiences would best serve the individual.

A discussion of supported employment should be part of any transition strategy for individuals who require additional assistance to become successfully employed. As consideration is given to providing any of the work experience processes discussed above, supplementing the experience with job coaching services may be necessary in order for it to be meaningful. Because adjustment to any change, including beginning a career, can require more time for individuals who are LFD, a supported environment can make the difference between success and failure. While all the tenets of supported employment (e.g., job matching, job accommodation, job coaching) should be considered, it is vital to center this process on the communication needs of the individual who is LFD. The implication is that a very specialized job coach who possesses the needed sign language skills or a qualified interpreter who becomes part of a special education program team is essential. Since communication with the person who is LFD is key for a successful job coach, individuals who are deaf themselves should be considered very desirable for the position.

While the discussion to this point applies to all students who are LFD, regardless of which educational setting they participate in, it should be recognized that a significant portion of the LFD student population attends state residential schools for the deaf. This fact creates another dimension for transition activity. For the residential student, transition may be to a community that is a great distance away. Regardless of the distance, a new set of players must be included in the transition process. At a minimum, the VR counselor from the student's home community must be added to the team previously described early in the process. That counselor will become the liaison to a variety of other service providers that the student may need to access. If it is obvious that housing will be an issue, the VR counselor should arrange for a representative of the appropriate housing authority to participate in transition meetings several years before the student's graduation. The VR counselor in the home community becomes the vital linkage to the various services described above (on-the-job training, on-the-job evaluation, vocational camps). It is critical to get the appropriate service representatives participating early in the process.

Unfortunately, for most students who attend a residential school, the home community tends to forget or postpone action until it is too late.

While transition places additional expectations and burden on education and the adult service delivery system, early, calculated, and deliberate planning can and will result in more successful outcomes for those whom the systems are meant to serve.

The special education administrator and the State VR Agency director must provide additional resources to the transition effort. Staff training is vital since educators and counselors need to better understand their respective roles. Transition is a relatively new process; however, it is a legal mandate of the system. Further implementation needs to become part of the strategic planning process. Transition done correctly will probably require a redistribution of resources. As stated near the beginning of this chapter, a very significant percentage of the VR customer base is of a transition age. It makes for good business to direct the human and monetary resources of VR to this group. Early contact and planning would reduce the recidivism which can become an administrative dilemma for the adult delivery system.

Recommendations

1. Rehabilitation needs to become involved with students who are LFD at an earlier age.
2. The local VR counselor should become involved early with the IEP process.
3. The educational system and VR need to be sensitive to issues around language and culture of the families and support systems of individuals who are LFD.
4. Administrators of the educational systems and the State-Federal VR Program need to develop cooperative working agreements to ensure the most effective delivery of transition services. These agreements need ongoing monitoring and modification to promote maximum effectiveness.
5. Educators should be encouraged to learn of and use best practices models in delivering services to students who are LFD.
6. Training should be made available to family members concerning their role in the transition process.
7. Educators should be encouraged to maintain an employment focus beginning in elementary school, including work skills, habits, and ethics.
8. Recognizing that a growing percentage of the VR consumers are under the age of 21, VR administrators must be willing to redistribute funds in order to more appropriately meet the needs of this younger population.

4 Achieving Employment Outcomes for the LFD Population

> America cannot afford to waste the talents of a single citizen, especially disabled citizens.... We do not have a person to waste and that is why we are here today, to rededicate ourselves to an America where every man, woman, and child can reach the fullest of their God-given potential.
>
> —President Bill Clinton, Celebration of 4th ADA Anniversary, 1994

National Emphasis

The State-Federal Vocational Rehabilitation Program is the oldest federal program for employment of people with disabilities. Along with other federal programs, it has been scrutinized to see if its processes have been streamlined so the consumer can more readily access services. In the past, the emphasis has been on process rather than outcome.

The Rehabilitation Act, as amended in 1998, has charted a new course for the State-Federal VR Program. The new Act clearly emphasizes successful employment outcomes and recognizes that VR must focus externally rather than internally. Rather than emphasizing adherence to regulations, case recording, and compliance, we must interact better with consumers and employers to enhance the opportunities for successful outcomes. The consumers must be more active in their programs—they must be better informed, and the employer and the community must be more involved in the rehabilitation program.

Additionally, the other components of the Workforce Investment Act of 1998 require states to implement partnerships to provide better avenues for training and employment of persons eligible for welfare-to-work programs. Given the potentially high number of persons who are LFD who receive some sort of public assistance such as welfare, this legislation and paradigm shift in VR will have a tremendous impact on these consumers. An overview of key provisions and mandates in the WIA of 1998 is provided in appendix 1.

The first chapter identified some of the characteristics of persons who are LFD and some of the barriers that must be overcome if they are to be active participants in the State-Federal VR Program. Historically, VR programs have seen these obstacles as insurmountable, and these individuals have been considered too severely disabled for services. With the philosophical changes in VR, we must develop strategies that will address the obstacles. There are the common barriers of no work experience, few marketable skills, inadequate career guidance, unrealistic or nonexistent career goals, and very little self-awareness of strengths and weaknesses. These challenges are compounded for the individual who is LFD by the broad range of risk factors discussed previously. If VR providers are to maximize the employability and job retention skills of this population, they need to focus efforts on these risk factors and deficits as they design and implement employment plans. Staffing issues are emphasized repeatedly throughout this document because it should be a given that a specialized, competent, experienced staff is the essential link to quality services and successful outcomes.

The Model State Plan (Watson, 1990) emphasizes this critical need for personnel with specialized skills and for programs that are tailored to meet the needs of this population. No strategy lends itself more than a team approach. The effective VR counselor should be skilled in the concepts and practice of team development and organization to effectively provide quality services. The team should design a strategic plan or curriculum to meet the risk factors of minority status, secondary disabilities, family support, socioeconomic status, and access to services (Long, Long, & Ouellette, 1993).

Most VR agencies overtly support the idea of comprehensive services to persons who are the most severely disabled, and with the LFD population there will be a multitude of challenges. A survey of service providers by Mathey and LaFayette (1990) identified over fifty obstacles in providing education and rehabilitation to traditionally underserved deaf populations. Most frequently noted were poor transitional planning from school to community, lack of effective job placement resources, lack of employer awareness training, lack of supported living services, lack

of long-term support, lack of staff, inadequate client communication skills, and lack of qualified interpreters. The challenge is compounded by the high prevalence of risk factors such as inadequate communication skills, isolation, educational deficits, secondary/multiple disabilities, and limited work history. Lump all these challenges—job-seeking experience, risk factors, lack of specialized staff, and lack of access to programs—and the chances for successful long-term employment of the individual who is LFD are drastically affected.

Historically, the rehabilitation approach has been based upon the medical model. That is, we identify a pathology or deficit, then develop a treatment plan designed to "fix" the problems so the consumer can become employable. The reality is that the barriers and risk factors associated with the LFD population can never truly be eliminated. Harvey (1990) addresses a systemic model that views the parts of a system as inseparable from the whole. This holistic approach values the interdependency and interrelationships of all the parts that may affect the person who is LFD. Services cannot, therefore, be provided in the traditional, prescriptive manner. They must be flexible, comprehensive, individualized, and long term. The remainder of this section will address such a systemic approach, covering informed choice, employability skills, marketing and placement strategies, retention strategies, employment teams, the employer perspective, and partnerships.

The Informed Consumer

The 1998 Amendments strengthened the principles that the individual be given the opportunity to exercise informed choice throughout the VR process, that the individual be provided with information and support services to assist him or her in exercising informed choice, and that the individual's employment goal be consistent with informed choice and other personal factors. The 1998 Amendments introduced requirements that allow the individual greater participation in the development of the IPE and the procurement of services. The challenge in working with individuals who are LFD is to effectively communicate these principles in a manner they can understand.

The person who seeks employment must be well informed in many areas to be competitive. Individuals who are LFD and their families must have all the information available to make the most positive choices in their rehabilitation program. They should be aware of current labor trends and possible employment options. They should know as much as possible about their individual strengths and weaknesses. They should have basic competencies in employment

applications and interviewing. They will need training in workplace literacy. They will need extensive communication and interpersonal skills training.

The Labor Market

The jobs of the future are shifting from manufacturing to the service sector. Over the past decade, nine of every ten new jobs have been in this sector. Job categories that have long been occupational strongholds of persons who are deaf, such as precision production, machine operation, and clerical work, are predicted to experience much slower growth (Watson, 1997). We know that the workforce is growing older and is becoming more diverse, and although there is a danger of displacement of some workers from traditional jobs, there are more opportunities for the LFD population. Consumers should be aware of this "window of opportunity" (Long, 1990). Business and industry will need a supply of workers for the new workforce. People with disabilities represent an untapped resource. They must, however, be qualified and be aware of the accommodations necessary for their employment (Anderson & Watson, 1995; Scherich, 1996; University of Arkansas, 1994; Schroedel & Watson, 1993).

Employability Skills Training

Although the Rehabilitation Act allows for the "use of existing information" in determining eligibility, we should not presume that evaluation activities are no longer necessary. We should approach the notion of comprehensive assessment not just as a tool for the service provider, but as a rich source of information for the consumer. A thorough assessment is crucial in determining the individual needs for pre-employment skill training. The assessment should address employment and other areas that will help attain successful employment. It should involve family members, representatives from educational institutions, rehabilitation professionals, interpreters, job coaches, and any others who might have specific knowledge of the individual's history and capabilities. And, of course, we must attempt to gain as much information as possible from the consumer.

Wolffe (1997) discusses the levels of intervention most often required for what is described as the "advocacy-level" job seeker. A specialty service provider generally intervenes by guiding the applicant to a job goal, selecting what jobs to pursue and arranging for interviews, assisting with job applications, being present to assist during interviews, arranging for job coaches, and providing follow-along or supported employment. The rehabilitation team of service providers

for individuals who are LFD should be aware of such an approach as they develop employment training activities and placement strategies. Once the team has identified strengths and weaknesses, the goal should be to determine the highest possible level of employment available and to provide the interventions/skills to achieve the selected goal. The following knowledge, skills, and abilities should be addressed:

Employment Application (Johnson & Boone, 1990a)

- Preparation of personal data sheet
- Practice completing information on different applications
- Development of a new vocabulary related to applications/resumes
- Awareness of employer expectations related to applications

Interviewing (Johnson & Boone, 1990b)

- Concepts of making a positive impression, appropriate dress, employer expectations, body language
- Practice of brief, simple, informative answers to common questions
- Understanding of the use of interpreters and how to arrange for services
- Awareness of accommodations and disclosure of limitations
- Understanding of the use of job coaches, interpreters, or other employment counselors

Job-Seeking (Long, 1988)

- Canvassing family and friends for job leads
- Review and understanding of assessment information to select job preferences
- Determination of acceptable salary, work hours, location, and work preferences
- Review of person-centered planning results and ecological evaluations
- Counselor-assisted search for job leads—job line listings, newspaper ads, etc.

Job Retention (Johnson, 1993)

- Handling/responding to communication breakdown, disagreements, criticism, or confrontation
- Asking for help—how and whom to ask
- Working with job coaches, interpreters, and other assistants
- Understanding employer expectations
- Life management: transportation, day care, money management, housing, personal/family relationships, and attendance/punctuality
- Use and care of assistive devices

- Communication systems: written, nonverbal, and supported, with coworkers and supervisors
- Understanding of cessation of and notification regarding Social Security benefits
- Awareness of payroll deductions
- Utilization of support systems: family, friends, job coaches, coworkers, attendants
- Practicing good work behaviors

Preemployment Learning

Numerous issues must be addressed when preparing for a job search. Among these are work literacy, instruction methods, previous work experience, and location of potential jobs. The language deficits and poor academic achievement often exhibited by the individual who is LFD create a need for teaching of workplace literacy and vocabulary. Throughout all phases of preemployment skill development, efforts should be made to enhance such vocabulary. With increased language comprehension comes increased understanding, and with increased understanding comes increased chances of employment success. The key to success in teaching and instruction is to focus on experiential, practical learning. The counselor/teacher must have the consumer practice, rehearse, and then use role-plays and mock situations for feedback. Skills are best taught by having the consumer watch a demonstration and then attempt the task (Johnson & Boone, 1990b). On-site, real-time learning activities are best. Some examples are listed below.

- On-the-job training
- On-the-job evaluation
- Trial work experience
- Unpaid work "internships"
- Volunteer work experience
- Summer jobs
- Employer-based mentorships
- Job creation (subsidized employment activity)
- Investigative company tours, job shadowing
- Visits to sites where other persons who are deaf/hard of hearing work
- Mock applications/interviews at work sites
- Visits to employment agencies and staffing companies
- Job club (Arzin & Besalel, 1980)
- Visits to one-stop centers
- Peer groups (Long, 1988)

Job Development and Placement

Throughout its history, the State-Federal VR Program has had the mission of providing job development and placement services for consumers. Employers have always been recognized as vital to meet this mission. However, VR has tended to view employers as a resource to meet consumer and agency needs without fully understanding the needs of businesses or labor market demands. This has left employers with the impression that this relationship is less than mutual. Maintaining the VR agency process rather than serving the consumer and employer customers has usurped much of the counselor's time and effort. The agency has not emphasized an understanding of the culture and values of the business community when hiring staff, nor has that been a major part of its orientation and training. As a result, staff have often felt uncomfortable forging relationships with the corporate world.

Systematically building links with the business community is essential to acquiring information that can help consumers with informed choice, as well as providing employers a resource for their staffing needs. The agency should establish itself as the placement expert for persons with disabilities. It should be willing and able to assist employers with solutions for issues around the Americans with Disabilities Act (ADA). It should provide training and awareness activities for the workplace. The agency should be prepared to provide assistance with interpreters, job coaches, and initial accommodation options (Johnson & Long, 1990). A strategy that is becoming more prevalent across rehabilitation agencies is known as disability management (Isom, Luce, & Moreland, 1998). A productive partnership can occur when business realizes that VR is a valuable human resource consultant, highly trained in job analysis, screening, counseling, accommodation technology, and engineering solutions. Additional services might be sign language classes, technology demonstrations, or awareness training about disabilities (Anderson & Watson, 1995; Schroedel & Watson, 1993; Watson, Anderson, Ford, Marut, & Ouellette, 1983). Most employers are unaware that VR can provide these services. Early intervention with existing employees, who may be on the verge of losing their jobs, can open the door for long-term relationships with employers and promote confidence in the rehabilitation agency. The employment team should have a strategic plan of contacts and activities that will enhance the promotion of VR services and job applicants.

For the consumer, the discussion of placement and employment strategies should occur early in the VR program. Placement specialists or employment counselors should be involved with the rehabilitation team at the outset (Schroedel & Watson, 1993; Watson, 1985). They can provide

excellent information to the team about the labor market and job possibilities. They are also keenly aware of employer expectations and needs. Family members should also be a part of the team. They offer a means of ongoing natural support and are not often considered in the assistance with transportation and other life skill needs.

The placement of individuals who are LFD can be done using any approach that works. The most effective is usually the *selective* approach—involving focused attention on a specific applicant, identifying his or her talents and abilities, then locating the most appropriate job (Johnson & Long, 1988). Often, extensive work is needed with employers to advocate for the applicant. This approach may be time consuming, but given the unique characteristics of the population, it is often the best technique. This is not a "quick, send me a warm body" placement. Members of the employment team cannot just review the classifieds or call job lines, send this applicant for an interview, and expect a start date for the following Monday. A potential employer will need an introduction to the disability to learn about the person, with his or her strengths and limitations. Employment teams must explain the support and advice VR staff can offer. Applicants should be introduced to the job and the working environment—they must see it for themselves. They must help with the decision. Visiting a work site and observing the job being done is an effective way to determine if the applicant is genuinely interested. The applicant's enthusiasm can give the employment team and the employer the encouragement to make the extra effort needed for this kind of placement.

Employment Development Strategies—Where to "Sell the Product"

- Federal agencies and contractors: Regulations require noncompetitive recruiting and hiring of applicants who are disabled, which can be accomplished with trial appointments.
- County, state, and city civil service systems: These may have policies that offer noncompetitive or trial appointments.
- Community and civic organizations (e.g., Sertoma, Civitan): Active community leaders who are interested in service projects can be targeted.
- Chambers of commerce, speakers' bureaus, labor unions: These groups offer networking opportunities.
- National chains such as Marriott, Hardees, Federal Express, and others who have shown interest in hiring applicants with disabilities
- Workforce development boards
- Family and friends

- State and local advocacy organizations
- World Wide Web sites (O'NET, www.doleta.gov/program/one)

Activities

- Promote agency/staff participation in personnel organizations and civic clubs
- Establish business advisory councils
- Participate in job fairs and recruitment seminars
- Provide employer training conferences, e.g., technology solutions, ADA
- Develop resource centers for technology and engineering (local JAN)
- Develop and nurture a mentoring group for individuals who are both deaf and hearing

Long-Term Support

A key factor to the success of the consumer who is LFD will be provision of postemployment and long-term follow-up services. Studies have shown that more than half of individuals with disabilities who are terminated or leave their jobs will do so within 18 months of being hired (Stewart & Watson, 1987; Roessler, 1997). The team should plan to develop natural supports within the workplace as well as use job coaches and staff for ongoing contact in order to ensure job retention.

The case for ongoing support has been stressed throughout this publication. Regrettably, the financial supports as well as natural supports in the community and at work are often not available. Supported employment funding is available for other disability groups such as individuals who have traumatic brain injury through the Driver's Trust Fund, or individuals who are mentally retarded through regulations and agreements developed with Mental Retardation and Developmental Disabilities (MR/DD). Certainly, individuals who are LFD are developmentally delayed and could fit in the definition used in the MR/DD eligibility regulations. The long-term support is just as crucial for these individuals as for individuals who are mentally retarded.

Although space limitations do not permit a lengthy discussion, we have included some examples of a successful supported employment program for LFD that was funded by the Ohio State VR Agency (see appendix 2, "Outreach and Supported Employment: Case Studies").

Technology Solutions

Applicants who are LFD are not often considered candidates for technology solutions. However, many employer concerns can be addressed with appropriate technology. Employers worry about safety communications. When VR employment teams can provide or introduce warning devices appropriate for each work environment, the concerns are diminished. For example, blinking lights can be installed for emergency evacuations. When employers are worried about keeping in contact with the worker, a vibrating beeper can be a solution. Assistive listening devices can often be used to enhance the residual hearing of a worker to ensure that communication is clear and understandable. Refreshable writing boards, located for ease of access, can be used for brief written communications between supervisor and worker. Good lighting in the workplace can increase speechreading capabilities. Volume-controlled telephone handsets or headsets can be effective, with or without hearing aids.

Many sources provide information about assistive technology and the various applications (see appendix 4, "Websites in Rehabilitation").

Employment Teams/Nontraditional Staffing

VR employment teams that step outside the traditional bounds of the long-standing job descriptions, roles, and responsibilities can be the key to quality employment outcomes. The demands put on VR agencies by downsizing, reduced funding, and increased emphasis on quality employment outcomes require creative use of staff and resources.

Should the State VR Agency strive to recruit and hire its own specialty staff to provide employment assistance? Can VR counselors do it all? Should each state develop partnerships with other agencies and funding sources to establish regional centers, or should they contract with private, freelance vendors who provide placement and follow-along services? States have found various solutions.

Some have decided to hire their own specialists. They have hired staff who primarily provide supported ongoing follow-up to employment. Others recruit and train certified interpreters to fill the role of communication specialist. These specialists serve as job coaches, offer communication assistance at the work site, or provide independent living counseling as employment continues. Paraprofessionals who are deaf are sometimes hired to fill the role of job coach, independent

living skills instructor, or assistant to a VR counselor. They can provide effective intervention between the counselor and consumer in a wide variety of settings. In other states, employment specialists who do job development and placement work only with applicants who are deaf.

How these professionals and paraprofessionals define their roles can be a crucial link to employment successes, job retention, and follow-along support. If their role is defined as service provider, not only to the applicant or worker but also to the employers, supervisors, and coworkers, they expand the impact VR can have. While these VR staff are making regular contact to maintain the relationships and offer supports to employers, they can continue to monitor the worker's performance and adjustment to the job. Support such as this can continue well beyond the case closure period because the visits with employers will continue. Essentially, this commitment to serve the employer customer provides the natural supports for the worker.

VR can often achieve increased employment success by staffing in nontraditional ways. Some states have solved the concerns about quality employment and follow-along by contracting with agencies such as Goodwill, Easter Seals, and other community-based rehabilitation center programs. These partnerships can make it possible to offer a full range of services delivered by a specialized staff at a central location. It is important in these contracts to specify standards for these specialized staff to be qualified to provide services to persons who are LFD.

Another solution has been the RSA funding of centrally located regional centers, such as the three regional LFD demonstration grant projects conducted at community-based rehabilitation centers in New York/New Jersey, Texas, and Arizona during the 1990s (see Watson, 1998b; Harmon, Carr, & Johnson, 1998) (see appendix 6). These kinds of comprehensive service centers have demonstrated that it is, in fact, possible for such specialized service centers to obtain highly successful outcomes with individuals who are LFD. Why are they so successful? Because they are able to provide the one-on-one, intensive services often required by individuals identified as LFD. One problem facing these LFD service centers is how to make the services available to everyone in the region. Travel away from home, relocation, housing, and costs can be major challenges to the regional center model. As a result, when federal funding of these successful demonstration projects terminates, they do not have the funding base to continue to operate as a fully staffed 24-hour treatment program. It would be to the advantage of State VR Agencies to identify ways to cultivate and support productive partnerships with community-based rehabilitation centers in order to better serve consumers who are LFD (Watson, 1998a, 1998b; Harmon, Carr, & Johnson, 1998).

The Employer Perspective

When the individual who is LFD is ready for work, his or her title changes from *consumer* to *applicant*. The scene shifts from the training classes and counseling office to personnel offices and the real world of work. Both the professional and the applicant must understand that employers do not want to be bothered with unplanned, unproductive meetings. They want the professional to know about their business and respect their process for application, interviewing, and hiring. Employers usually want to focus on jobs immediately available, not those that might be available in six months. Discussions about applicants who will need extensive accommodations and supported employment might best be reserved for employers who have an established, trusting relationship with the VR employment staff. Tour the newly contacted employer's workplace and refer applicants who require less time and support. Remember that employers often view the VR representative as a "social worker" with no business savvy. In order to represent the applicants well, VR teams must learn how to approach employers in a business fashion, introducing an appropriate candidate to fill a job, prepared to discuss employer concerns, speaking their *language*. Remember, business organizations are attempting to make a profit.

Employers and supervisors are faced with demands for more productivity with fewer employees. It is understandable, then, that the employer may view the applicant or worker who is LFD as problematic. The most common concerns expressed by employers are safety, communication, and interaction with persons on the job site. Other legitimate concerns may be related to training time, productivity, and cost of accommodations. A competent, informed rehabilitation team should be prepared to work closely with employers and answer their concerns. The team should be fully aware of the applicant's skills, personality, and work ethics. They should know how to assist the employer in finding resources and providing support such as job coaches, interpreters, and assistive devices. They should possess knowledge and expertise in recommending accommodations (University of Arkansas, 1994; Johnson, 1990; Long, 1988).

Research has shown that accommodations are most likely to be provided when employers and workers collaborate to determine the best approach (Anderson & Watson, 1995). Most often, individuals who are LFD cannot suggest accommodations because they do not know the options. The team can provide examples of similar successful placements and accommodation strategies provided in other work sites. The University of Arkansas Research and Training Center has done extensive research in the area of job placement and workplace accommodations (see appendix 4, "Websites in Rehabilitation") and is an excellent resource (see, for example, Anderson, 1995;

Johnson & Long, 1990, 1991; Johnson, 1989, 1992, 1993; Long & Davis, 1986; Marut, 1986; Mowry & Anderson, 1993; Scherich, 1996; Schroedel & Watson, 1993; and Watson, 1995).

Developing Partnerships

Partnerships are productive relationships that benefit the VR customer because they add value to the contribution that each entity can provide separately. Establishing collaborative relationships requires an investment of staff time. However, these investments should pay dividends in the marketing of the VR program, resulting in an increased number and quality of employment outcomes for customers. Partnerships may require the agency to redefine the responsibilities of its personnel and reallocate other resources in order to take advantage of opportunities as they present themselves.

A variety of partnerships are possible, including those with the employer, labor, other state agencies, other agencies funded under the Rehabilitation Act, and community-based advocacy networks. Partnerships based on broad needs are further defined and enhanced by the relationships developed at the local office level.

Different strategies can be used to develop collaborative partnerships, depending upon the partner with which a VR agency is dealing. Building cooperative agreements is a dynamic process. Whether these agreements are mandated in the Rehabilitation Act or developed because of mutual need, the partnership flourishes only as trust and understanding develop. It is essential to begin each relationship with a thorough discussion of what the relationship does to help each entity accomplish a portion of its own goals. Built into the agreement must be some mechanism by which the partners evaluate the effectiveness of the working agreement. Ongoing evaluation of all the VR agency's cooperative partnerships is essential to the effectiveness of the agency's strategic plan and impacts the decision to continue the established relationships or to enter into others.

Employers as Partners

If VR agencies were asked to select a mantra, it would be *jobs, jobs, jobs*. Employment goals and quality employment can only be realized with the employer as a partner. All levels of the VR system—administrators, direct service professionals, clerical support, and contractors—must

embrace the concept and learn the practice of serving the employer as our customer and eventually as our partner. If we are serious we must

- Learn about the local employment community—market analysis
- Bring the key players to the table with a plan
- Assign talented, trained staff to be representatives
- Listen when the employer speaks
- Train all staff/contractors how to build and maintain effective relationships
- Speak the same business language
- Know the "products" well before the sell

An earlier IRI publication written by rehabilitation professionals and business partners thoroughly explains effective partnerships with employers. It was sponsored by the 23rd Institute on Rehabilitation Issues and can be ordered from Stout Vocational Rehabilitation Institute, University of Wisconsin–Stout, Menomonie, WI 54751.

Partnerships with Education

Residential schools for the deaf and programs of local school systems could benefit from collaborating with rehabilitation counselors for the deaf, state coordinators for the deaf, and postsecondary programs. The rehabilitation counselor and employer services specialist can be a bridge with transition from school to training and to work. In the past, potential consumers have not been referred to State VR Agencies until they have completed high school, dropped out, or turned 21. It would be effective for rehabilitation programming to begin at a much earlier age to prepare for continuing educational opportunities. (See chapter 3 on school-to-work transition.)

Some states have organized statewide and local interagency councils among special education and VR professionals. It is not the sole responsibility of the school to get students through educational programs, or the sole responsibility of VR to find appropriate employment. It is a collaborative effort among all agencies to work toward the consumer's employment. Interagency councils with employers as members could plan to effectively address labor market needs and expectations (Watson, 1998c). Within the context of the interagency council, there can be important exchange with employer members.

The rehabilitation professional can educate employer members on the benefits of hiring people with disabilities and on available incentive programs, such as on-the-job training and the targeted job tax credit program. Interagency council networking can enable the rehabilitation professional to stay current on the job market and be aware of future employer needs. The rehabilitation professional can remain informed about local employment opportunities and thus prepare job-ready clients for the job market that is currently available. Once the client is placed, interagency council networking will facilitate job retention and development of future career advancement opportunities.

Partnerships with the Deaf Community

One strategy to develop a working relationship with the Deaf community is attendance at functions and activities for individuals who are deaf. It is important to keep appointments, visit regularly, attend events when invited, and provide current VR information. The VR practitioner must realize the importance of providing VR services in a timely manner. VR counselors engaging in relationship-building activities will become culturally sensitive to people who are LFD. The community of individuals who are deaf can be friend or foe to the VR agency.

The National Association of the Deaf has affiliate consumer chapters in most states; many of these state associations are very interested in establishing a working partnership with their home State VR Agencies. As friends and partners they can be invaluable advisors and provide creative ideas and leadership as VR attempts to improve services to the population of consumers who are LFD.

Appendix 4, "Websites in Rehabilitation," provides contact information for the above "partners," as well as for other potential partners, such as the American Deafness and Rehabilitation Association (ADARA) and the Registry of Interpreters for the Deaf (RID).

Partnerships with Communities and State/Local Governments

Building collaborative arrangements with a variety of partners in local communities and state/local governments helps improve and streamline the way the State VR Agency does business. Partners should be selected based on a strategic plan for the agency that expands customer service options and adds perspective to the rehabilitation program. The strategic plan serves to assist the State VR Agency and its local offices in the delivery of VR services, improving referral sources and

defining activities necessary to address the unmet needs of individuals with disabilities in specific communities. In addition, the collaborative arrangements defined in the strategic plan can help the VR program define its role in the Deaf community as well as the larger community and evaluate and promote the value of VR for individuals who are LFD.

One example of a project for VR and local governments is the development of group homes specifically designed for individuals who are LFD. So many of the needs of individuals who are LFD can be met in such a facility. Monitoring of life skills, promotion of social interaction, provision of medical and substance abuse treatment, housing, and housekeeping/homemaking skills development are some of the possible services. Local HUD representatives or housing authorities might be a place to start discussion about group homes for these individuals.

Streamlining the local State VR Agency is not going far enough. No agency can stand alone. It is essential for local agencies to develop and maintain mutually beneficial collaborative relationships with partners.

5 Human Resource Management

Human resource management (HRM) is a process of recruitment, development, and retention of qualified and competent staff. With the provision of services to persons who are LFD, there are legal, practical, and ethical considerations. Each of these considerations is addressed in this chapter.

The Mandates of the Rehabilitation Act, as Amended in 1998

The Rehabilitation Act, as amended in 1998, mandates that State VR Agencies employ, to the extent reasonable, an adequate supply of qualified state rehabilitation professionals and para-professionals. How does this apply to the recruitment, training, and retention of professionals and paraprofessionals who provide direct rehabilitation services to individuals who are LFD? To attempt to answer this question, let us examine some of the specific language of the Rehabilitation Act Amendments of 1998 and then look at the personnel implications for serving individuals who are LFD.

Purpose

Section 100(a)(2) states the purpose of the Act: "to have State programs designed to assess, plan, develop, and provide VR services for individuals with disabilities, consistent with their strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice, so that such individuals may prepare for and engage in gainful employment."

Choice

In Section 102(d)(1), the State VR Agency is mandated to develop and implement written policies and procedures to inform customers "through appropriate modes of communication about the availability of and opportunities to exercise informed choice, including the availability of support services for individuals...who require assistance in exercising informed choice throughout the VR process. These policies must provide or assist individuals in acquiring information that enables them to exercise informed choice specifically in: the selection of employment outcome; VR services needed to achieve that employment outcome; the entity that will provide the services; the employment setting in which the services will be provided; and the methods available for providing these services." This is amplified in the individualized plan for employment (IPE) mandates in Section 102(b)(2)(B).

Policy

The policy statement in Section 100(a)(3) mandates that "qualified VR counselors, other qualified rehabilitation personnel, and other qualified personnel facilitate the accomplishment of the employment outcomes and objectives of the individual."

Comprehensive System of Personnel Development

In Section 101(a)(7), emphasis is placed on establishment and support of qualified rehabilitation staff. It mandates a comprehensive system of personnel development (CSPD) that focuses on pre-service training; recruitment, development, training, and continuing education of current employees; and upgrading and retention of staff to meet quality standards for their job role. It requires State VR Agencies "to ensure an adequate supply of qualified State rehabilitation professionals and paraprofessionals." It requires that the State VR Agency establish standards for such staff "consistent with any national or state approved or recognized certification, license, registration, or other comparable requirements for that job function." It further requires, in Section 101(a)(7)(c), that the state plan "contain standards to ensure the availability of personnel within the designated State unit, to the maximum extent feasible, trained to communicate in the native language or mode of communication of an applicant or eligible individual." There is, however, no federal language in the Act, nor in RSA policy, that defines the qualifications or communication standards for staff who work with individuals who are deaf. Some states have

implemented ASL communication assessments, but even this in many cases is not targeted to the varying communication modes and needs of individuals who are LFD.

Communication

Provision of VR information and services "in an appropriate mode of communication" is specified throughout the Act from the point of intake—involving information pertaining to agency guidelines, confidentiality, rights, and eligibility determination—to understanding options in IPE employment goals and services, to participation in closure decisions. Plainly, it is intended that communication accommodations be provided to the person who is deaf throughout the VR process, either directly through the counselor or other service provider or through interpreters and technology that result in understandable two-way communication with the individual.

Meeting These Mandates

What then is a "qualified" professional or paraprofessional when it comes to serving an individual who is LFD? How can the VR counselor determine the strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice of an individual with whom he or she cannot communicate? How can we ensure that the individual is provided sufficient and understandable information to be able to have a voice in his or her own program and make informed decisions related to his or her employment, life, and informed consent issues? How can we ensure that a two-way dialogue takes place in which both sides understand and discuss the issues and unique needs and circumstances of the individual?

To comply with the mandates of the Act, the agency must consciously examine its philosophy, commitment, staffing structure, and associated CSPD specifically in reference to this target population. Clearly, the law intends that an eligible individual be provided with understandable and comprehensive information on which to make informed choices about his or her IPE job goal, services, and service providers.

Qualifications of staff who provide services to individuals who are LFD must therefore be considered in State VR Agency personnel and human resource development planning, especially since even under an Order of Selection for Services, most individuals who are LFD would meet the state's criteria for "most significant disability" (Section 101[a][5]) in priority categories.

Staffing Structure

Administrative Level

In addition to the need for commitment at the top administrative level, it is critical to have an administrative staff person who has knowledge and skills in the area of LFD and who is empowered to provide direct support to field staff. Personnel working with this population tend to get isolated in their work, mostly because other people do not understand the subtleties of the job. Support, assistance, and access to this top level can be key to maintaining job satisfaction for personnel serving consumers who are LFD. This role would logically be assumed by the state coordinator of services to individuals who are deaf and hard of hearing (SCD) in states where this title and function is in place.

Reiterating this concept, the Model State Plan (MSP) (Watson, 1990, 1993) points out that the State VR Agency is responsible for supporting adequate and effective delivery of rehabilitation services. To meet this responsibility, the MSP suggests that State VR Agencies should have at the administrative level a staff person primarily responsible for the planning, development, and implementation of programming for rehabilitation services of persons who are deaf. This staff person, often the SCD, according to the MSP, should have full line authority reporting to the state director and a direct link with counselors who serve consumers who are deaf and their managers.

Gough (1996) summarizes extensive interviews with staff from eight programs deemed to be exemplary for serving consumers who are LFD. Over and over again various staff identified support and understanding of the administration as well as acknowledgment of the staff's efforts to be central to the success of the program. This validates the belief that the commitment to serve this population, along with administrative staff with knowledge and expertise to effectively support staff in the field, must be in place for success.

Direct Service Providers and Teams

State VR Agency services are mandated to be statewide (Section 101[a][4]). Staffing considerations, then, must address this requirement when planning services for individuals who are LFD.

Models that include various combinations of specialists, generalists, and/or teams can be used—dependent on the individual state demographics, geography, and human and monetary resources. Some models use specialists in large urban areas that have their own specialty caseload and also provide consultation to generalist counselors in other less-populated areas. Other models have teams of specialist professionals and paraprofessionals who work statewide. Some models utilize generalist counselors statewide who receive intensive training in the disability and how to access services in the client's mode of communication. Often promotional opportunities are offered to support staff and paraprofessional staff as an incentive to pursue specialized training.

Whatever the model, it is important to recognize the ideal knowledge and abilities that are essential to working with this population and the critical need for ongoing human resource development as advancements are made in the field and as staff turnover occurs. Also, it is imperative that the State VR Agencies recognize and accept the additional time required by the VR staff person to effectively serve the consumer who is LFD. Often this staff person has several different roles such as social worker and interpreter/communicator. An investment of time is crucial to the development and success of the individual who is LFD. Production goals and expectations for these VR staff persons will be different from those for VR staff serving individuals with other disabilities.

As emphasized previously, service providers working with consumers who are LFD should develop skills for direct communication with these individuals instead of relying on interpreters. This is different from services to other persons who are deaf, in which case utilizing interpreters can often be an effective means for facilitating communication and accessing existing services. Even interpreters who are nationally certified or state screened at the top level do not necessarily communicate effectively with individuals who are LFD. Communication standards should be determined and enforced, whether through direct service or through interpreters. The standards should be required of both staff and service providers, including counselors, support staff, job coaches, clerks, job placement specialists, and interpreters, and should also be extended to the workforce development system and one-stop shops. These programs will need to make an effort to develop practices to appropriately serve individuals who are LFD either directly or through supports. They should be able to look to VR staff for the expertise and technical assistance to implement such practices.

When State VR Agencies determine that specialist counselors and support staff are needed, state personnel systems must be partners in developing job titles, or variants on existing titles, to

require competence in deaf language modes of communication. In addition to the education required for the generic job title, the knowledge and abilities for the specialist positions need to include competency in communication (as measured by an assessment tool such as the Sign Communication Proficiency Interview) and in the psychosocial aspects of individuals who are LFD.

Regardless of the specific model used to provide services to the target population, a team approach will often be needed to deal with the multiple needs of consumers who are LFD. It is preferable to receive input from a variety of persons. Use of teams in this way is much like a "staffing" to generate ideas and resources and resolve problems. The various types of personnel that may be involved in these teams include the counselor, rehabilitation technologist, placement specialist, and job coach. Teams may be formed on a local or state level or both.

It is desirable to bring together all counselors serving consumers who are LFD on a regular basis. At these meetings practices, policy issues, resource development, problem solving, and training can help promote consistency of services statewide. In addition, involving the skilled administrative staff person on this team can be helpful when problems need to be taken to the top level for resolution.

Staff Knowledge, Skills, and Abilities

Staff providing services to persons who are deaf or hard of hearing must either be skilled or develop the prerequisite skills in three distinct areas: (1) professional discipline within the rehabilitation delivery system (counseling, evaluation, placement, etc.), (2) skills in manual communication, and (3) knowledge of deafness. To help individuals who are LFD become independent in their daily lives, especially through employment, staff must specialize further and be able to apply these same three areas with this very diverse population. Danek (1988) describes deafness rehabilitation personnel as possessing a "rather unique set of competencies, including bilingual ability (sign competency)."

Each of these areas can be further divided into three parts—knowledge, skills, and abilities (or KSAs). Knowledge is acquired through various learning activities and is typically associated with a formal academic education, as found in colleges or universities. Another important aspect of knowledge comes from experience and practical application as the savvy counselor uses both the gut and the head. Skills are often developed in formal or informal training programs and

frequently relate to applied knowledge or psychomotor skills such as sign language interpreting, computer skills, etc. Abilities are natural talents and are more the result of inherited traits than education or training. Abilities help people to learn, as when a staff person is able to grasp sign language with ease or to have a natural empathy. Abilities are also a limiting factor, as is often seen when learning a skill. For example, an individual's motor coordination may hinder the proper handshape formation while he or she attempts to learn fingerspelling.

Certain abilities and traits are associated with professionals serving this population. Sligar (1994) and Gough (1996) examined the characteristics of these professionals and describe twenty-nine characteristics, with four showing up in both studies:

- Patience and perseverance
- Open-mindedness or nonjudgmental perspective
- A sense of humor and adventure
- Energy, motivation, and enthusiasm

The other characteristics from Sligar include denial of self; character; a strong drive empathy; the ability to see possibility or potential (an optimistic orientation); the ability to set boundaries (personal and professional); a visual orientation; a bias for action; artistic ability in the sense of language; and a sense of belonging to a unique group of professionals.

The other characteristics from Gough (1996) include common sense; flexibility; experience with/respect for other cultures; creativity/spontaneity; decisiveness/independence; caring balanced with regard for empowering clients; assertiveness/aggressiveness; curiosity/willingness to learn; humility; team player attitude; and strong sense of self/courage.

The overlap between Gough and Sligar shows that successful professionals have specific identifiable characteristics that need to be considered in the selection and development process. These abilities serve as the parameters for development of professionals.

Professional Discipline KSAs

Professional organization certifications or government-regulated licensures already exist to indicate levels of competency for some professional groups: certified rehabilitation counselor, certified interpreter, licensed clinical social worker, and registered nurse. Measures can be taken

to determine areas of need for mastery of discipline skills or continuing professional education as these competencies are identified in the credentialing process. As additional certifications and licenses are developed, they must be considered when hiring new staff.

It is crucial that new developments within the discipline be incorporated and imported into the delivery of services. These may include strategies from supported employment, offender rehabilitation, or a related discipline. Gough (1996) found that practitioners need to have knowledge of the rehabilitation process and a knowledge base rich in Deaf culture, VR, and job placement. Similar needs for job placement skills (Danek, 1988) or job engineering and restructuring (Petty, 1988) were stressed in two studies within the broader field of deafness rehabilitation.

Within and across the disciplines, it is important to consider several factors when providing services to people who are LFD. First are new technologies, and this area includes devices for the public at large or adapted for specific disability groups. Technology cuts a dual path for people who are deaf. For persons who are literate and have experience with telecommunication devices, remote video interpreting, and similar technological applications, access to the mainstream is opening daily. However, persons who are LFD do not have the basic skills of literacy or know how to effectively use an interpreter. This group becomes even more distanced from the mainstream of deaf life. Technology also includes techniques for instruction or learning, as well as strategies for improving communication access.

Another area to consider is new ways of working with and including peoples from different cultures. This involves not only the person who is LFD, but also the family and community. Each person must be approached as an individual with a unique and often obscure background. This requires the professional to look at all the factors, including communication (mode, place, purpose, etc.) and personal and social supports, to be able to develop the right intervention strategy.

Communication KSAs

Competencies in communication include a wide range of knowledge and skills. While certification for this content area is not as developed as that for the professional disciplines, there are some ways to measure skill level. One indicator is the Sign Communication Proficiency Interview (SCPI). This instrument is intended to evaluate the individual's (deaf or hearing) mastery of sign communication skills (Caccamise & Newell, 1993). Another indicator might be the state

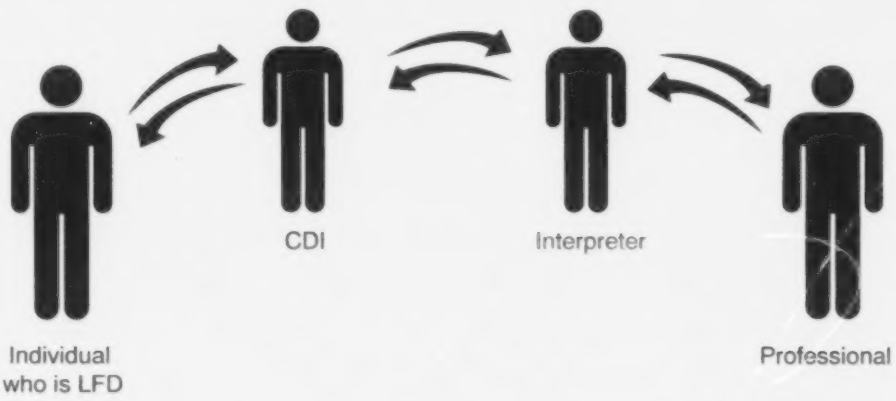
interpreter quality assurance screening process, as this serves as a way to identify sign skills and corresponding areas for improvement. Although completion of sign language classes does not represent mastery and classes vary in rigor of standards, it is an indicator of participation and a place to begin the process to determine mastery or developmental need. It is important to remember that not all people who are deaf use ASL, so these measures cover only part of the communication skill necessary to provide services to this population.

Staff must also know and understand home sign systems, varying from very simple pointing to highly complex gestures that are almost a language of their own, and be able to understand a person who is LFD with a limited vocabulary who pantomimes messages. There are no programs or classes to develop these skills. Rather, the experience of the professional comes into play—not only experience with the population but experience with the specific individual. The professional must learn the particular gestures and their meanings in order to piece the story together. After years of trial and error the professional becomes more proficient. Gough (1996) nicely summarizes this notion of differences in communication when she writes that the professional must have "adaptability in terms of language, a willingness and ability to be flexible in communicating ideas."

Finally, the staff person must understand when and how to use interpreters. Merely having an interpreter present is not the magic bullet to bridge the communication gap. The professional must weigh the pros and cons of involving another person in the communication process. The presence of an interpreter is no substitute for professional knowledge of discipline and deafness.

In some situations, a certified deaf interpreter or CDI (sometimes called a relay interpreter) is used. This is a person who is deaf who acts as an intermediary interpreter between the person who is LFD and the hearing interpreter who then relays the message to the professional (see Figure 5.1). Within certain situations a CDI can be a useful communication bridge, but the professional must be able to understand and interpret the meanings of the communication. CDIs are used with professionals who may be deaf or hearing, as the issue at hand is not the signing skills of the professional but the need to communicate effectively with the person who is LFD. Needless to say, this is a lengthy and expensive means of communication that should be used only when appropriate.

Figure 5.1—An Interpreting Situation with a CDI



The situation and communication mode of the individual who is LFD must be the primary consideration in the selection and use of an interpreter. The interpreter's education, background, experiences with the population in general and the specific individual in particular, and certification must be evaluated in the selection process. This is knowledge developed over time by an experienced professional.

Knowledge of Deafness KSAs

Knowledge of deafness may be the least clear of the content areas but it does have specific KSAs. The most readily identifiable are the use of related discipline skills such as VR, job placement, mental health, audiology, and related medical and aural rehabilitation fields. Since these are disciplines in their own right, the professional's background can be evaluated in light of the field's standards. However, what is important is how these discipline-based skills and knowledge are used to serve people who are LFD. Also needed are various theories from these disciplines, such as vocational or career and adult development, counseling, and assessment, and how these relate to people who are deaf. Again, it is the time-tested use of these borrowed theories that helps professionals understand and serve the target population.

Another skill area is understanding and appreciation of Deaf culture. While people who are LFD may or may not share in this culture, it is necessary to understand it. Deaf culture uses ASL, a language taught to persons who are LFD. As persons who are LFD enter this culture, there are social possibilities as well. The service provider needs to understand that this population is

similar only in the loss of hearing and is different in all other aspects (personal, educational, vocational, etc.).

Service provision often requires a multidisciplinary approach and is so varied that one ideal team approach cannot be identified. What is important here is to determine the level of skill the service provider has as either a leader or participant in this part of service delivery.

All of the KSAs described in this section are needed if the rehabilitation worker is to provide effective services in an efficient manner with this very unique population of individuals.

Recruitment

Prior to recruitment, the organization needs to undertake a strategic planning initiative, as described in chapter 6. As organizational strengths and needs are analyzed in terms of desired level of service delivery, it becomes a matter of intentionally recruiting an individual with the right mix of KSAs to provide the desired level of service. This statement is easier to make than to put into practice! Two other considerations are time and resources available for the recruitment process. Questions like "How long has the position been vacant?" "How long can we afford to leave the position vacant and not serve anyone?" and "What financial resources can we afford to put into this recruitment?" need to be answered. Some potential recruitment sources exist, and, depending on the organizational needs, different strategies may be selected.

For a person who is discipline- and deafness-ready and who may or may not have field experience, a pre-service training program may be a possibility. An applicant from a rehabilitation counselor for the deaf (RCD) training program is an example of a discipline- (rehabilitation counseling) and deafness-ready applicant. A partial list of leading RSA-funded RCD long-term training programs is presented in appendix 5. These and other RCD training centers are excellent sources for finding counseling personnel trained in deafness as well as rehabilitation. Quite frequently the professors are a good source of contacts for past graduates who are seeking a job change. The deafness rehabilitation counselor training programs offer the most qualified academic candidates, while the generic rehabilitation programs occasionally have a person with a deafness background among their graduates.

An in-service orientation to deafness and postemployment training programs are other avenues for recruiting staff with the KSAs to hit the job running. However, if such a candidate is unavailable, the organization may seek other qualified applicants:

- *Discipline-ready applicants* (general rehabilitation counselors, for example). There are a variety of pre- and in-service training programs from which to recruit.
- *Communication-ready applicants*, who may be culturally Deaf, qualified interpreters, or children of adults who are deaf. Recruitment of persons who are culturally Deaf may best be accomplished by posting the job with placement and alumni departments at Gallaudet University and the National Technical Institute for the Deaf, as well as through the Postsecondary Education Programs Network (PEPNet) of colleges and universities that enroll large numbers of students who are deaf or hard of hearing. Recruitment of a person in the community who is deaf will require contacts with the local Deaf community through such avenues as the church, sports associations, clubs, or other local resources. Interpreters may be recruited through their training programs, state organizations for interpreters, or other local organizations that may use interpreting services such as an independent living center or community-based rehabilitation program.
- *Deafness-related discipline applicants*, such as practicing mental health workers, substance abuse counselors, or other professionals that work with people who are LFD. They can be recruited from pre- and in-service training or from the workforce.

However, there are trade-offs when a person is hired without all of the prerequisite skills:

- The discipline-ready applicants need to acquire knowledge of deafness-related disciplines. Given their previous academic success, this is most likely to be accomplished if the individual is willing to invest personal time and effort to develop such expertise. A greater question is the ability and desire to develop a high level of manual communication skill proficiency. To be able to understand and communicate with a person who is LFD, the rehabilitation professional has to function at a higher level of language proficiency. It is at this point where the selection process is critical. The characteristics described in the opening are most critical regarding the development of these communication skills.
- The communication-ready applicants require discipline development time of two to six years to obtain a college degree in counseling, job placement, or a related field at the bachelor's or master's level. This type of development is frequently away from the work

site, requires time away from the job, and usually requires an additional financial commitment from the agency. These factors must be taken into account when hiring.

- The deafness-ready applicants are the most complicated to describe, as this group includes related discipline-ready professionals who may or may not have the right mix of characteristics and communication skills. For example, this group may include a M.Div.-prepared pastor with ministry experience with individuals who are deaf (implying communication skills), an audiologist with a CCC who knows only the manual alphabet, or a certified oral teacher of individuals who are deaf, who not only does not have manual communication skills but also is philosophically opposed to sign language. It becomes incumbent on the hiring authority to weed through this confusing myriad of related disciplines and determine which will work for the organization. Then the additional considerations from the above categories have to be overlaid upon this hiring decision. It is suggested that an experienced professional such as an SCD or another similarly knowledgeable person be involved in the selection process.

As this discussion illustrates, the recruitment process will probably involve decisions with many variables. The level of readiness and amount of development are the two most critical as integrated with the needs and resources of the organization.

Agencies are also encouraged to recruit persons of color into the field. Many persons who are LFD are from minority groups and need role models and others with whom they can relate as well as with whom they can communicate. This ability to fill a dual role is critical in the provision of services to this population. Efforts need to be made to recruit from various non-white institutions, both formal and civic or social service in nature.

A final variable is the reality of the state civil service system under which most of these service providers are recruited and hired. It is often necessary to look for creative ways to reach the applicant who is best matched for the position over another applicant who may be better qualified on paper, or to interview and hire a person who is underqualified for the position with a plan in place to develop that person for the job. Using part-time, temporary, trainee, internship, or other positions within the existing system are creative ways to hire the best-matched applicant for the position.

Development

Upon hire, the new employee is in need of development in each area. Unless the employee has KSAs and experience, then a developmental plan needs to be initiated. A summary profile based upon the above discussion is provided in Table 5.1.

Table 5.1—Development Required for Different Types of Applicants

Level of Readiness	Development Needed
Discipline-ready, with KSAs with individuals who are LFD	• Continued honing of skills through use of mentors and peer contacts
Discipline-ready, with no experience	• Communications skills • Deafness knowledge
Communication-ready	• Professional discipline • Deafness knowledge
Deafness-ready	• May need manual communication skills • Discipline-related training (rehabilitation, job placement, etc.)

There are several ways to develop these skills. Some possibilities include the following:

- *Short-term training* such as orientation to deafness programs, American Deafness and Rehabilitation Association (ADARA) conferences (state and national), and professional development symposiums. These programs may require a shift in emphasis to include persons who are LFD.
- *Related skill development* available at the National Rehabilitation Association (state and national), Association of Higher Education and Disability (AHEAD, state and national), PEPNet, and other professional development seminars. Programs such as the regional rehabilitation continuing education programs may assist with the training emphasis on the LFD population.
- *Mentoring from inside or outside of the organization.* Mentors can be arranged through formal or informal arrangements. Several potential mentors in the field may be identified through their attendance at Post Employment Training in the Administration of Deafness Rehabilitation Program (PET-D) or leadership within ADARA or AHEAD.

- *Peer development and modeling* usually found within the organization or through professional groups. This offers excellent opportunities for case discussion, brainstorming, and affirmation of case management decisions.
- *Coordinated field visits.*

Techniques and KSAs can be added as a part of the pre-service training program curriculum.

There are specific content areas for development:

- Relay interpreting skills
- Case study techniques
- Development of job placement strategies and skills specific with this population

Retention

After the selection process and institution of a development plan, it is necessary to retain the employee on the job or the manager is faced with the task of starting over. The supervisor has strategies available that may assist with retaining a valued employee:

- Flexibility of hours and working conditions to allow the professional to attend the various functions necessary to be known to and accepted by the Deaf community
- Opportunities to meet with peers (in deafness, LFD, discipline)
- Continued development (in discipline, communication, and deafness)
- Inclusion in the organizational team
- Development of a career ladder as the professional develops KSAs and is able to use these with the more challenging individuals
- Recognition as a senior or master counselor with financial incentives
- Careful goal setting that considers the complex factors and time necessary to successfully place individuals in this group
- Awareness of indicators of burnout

Another strategy for retention and development is an evaluation with specific feedback to further develop the KSAs of the employee. It is important that all three areas be included in the evaluation—discipline, communication, and knowledge of deafness. As the manager looks at the

level of readiness of the hire and works to develop a plan for KSA improvement, this type of evaluation becomes critical if the service provider is to be able to perform job duties.

The agency spends a great deal of time and effort recruiting and developing an employee of this caliber. It therefore becomes just as critical to spend time and resources to keep him or her in the organization.

Toward a Comprehensive System of Personnel Development

In addition to the Rehabilitation Act, as amended in 1998, requiring State VR Agencies to design a CSPD plan, the development of "standards and indicators" will reinforce the need to focus on HRD activities for personnel who serve individuals who are LFD. The current proposed regulations to establish standards and performance indicators for the State VR Agencies emphasize positive employment outcomes of individuals with significant disabilities. This evaluation standard is one of three "primary" indicators, which are considered to be most significant in evaluating the State VR Agency's success. Stressing this indicator recognizes that it is generally more difficult and expensive to help these individuals with significant disabilities obtain competitive employment and allows states to account for their performance in this area. The idea of meeting these performance indicators will motivate State VR Agencies to more seriously approach HRD, including serving individuals who are LFD.

Once a State VR Agency has identified LFD among its priorities, CSPD needs can be addressed through RRCEPs, CBREPs, master's programs, research and training centers, in-service training, consultants, short-term training grants from the RSA, in-state programs, distance learning, mentoring programs, and continuing education programs that are accessible to professionals who are both deaf and hearing. These systems are already in place and can facilitate development of standards, assessment tools, training, and educational programs needed by State VR Agencies to effectively implement an LFD initiative.

To meet the needs of persons who are LFD, State VR Agencies must ensure that understanding of LFD issues receives equal priority to the requirement that staff have a master's degree and CRC credentials. Individual development plans need to reflect this priority and recognize the time required to prepare staff persons at the skill level to work with consumers who are LFD.

The outcome of any effort can be directly linked to the quality and dedication of the direct service staff. In serving the target population, not only do staff need to be experts in the fields of rehabilitation and communication, they must also possess skill in communicating with these individuals so that barriers to service delivery are eliminated. In addition, staff must be responsive to developing and cultivating a customer-oriented service delivery system (Miller, Baker, & Tomlinson, 1998). The bottom line is that special attention to ensuring quality services to individuals who are LFD through personnel practices and HRD is the legal thing to do *and* the right thing to do.

Recommendations

1. When developing the CSPD, include the recruitment, retention, and ongoing training needs for staff who provide services to individuals who are LFD.
2. Establish a position at the state office level (or assign responsibility to an existing position) to be responsible for oversight and program development in the area of LFD, providing coordination, training, technical assistance, updated resources and information, and in-service training to staff who serve this population.
3. Identify/establish a statewide network of direct service delivery professionals who are qualified to provide equal access for individuals who are LFD in VR, independent living, and supported employment extended services.
4. Implement and use recruitment strategies that strategically search for a discipline-, communication-, and/or deafness-ready applicant.
5. Establish sign communication standards that must be met by all staff, both agency and approved vendors, who work directly with this population. Identify an instrument (such as the Sign Communication Proficiency Interview) to measure such skills. Consider extra compensation for individuals or vendors who meet these standards.
6. Partner with the state personnel or civil service agency to develop appropriate knowledge and skills for titles that serve individuals who are LFD, along with variant titles that require sign communication skills. Encourage them to use the same evaluation instrument used by the agency to evaluate communication skills.
7. Promote flexibility in civil service requirements to recruit and hire the best-matched applicants, especially persons who are deaf or hard of hearing and of color.
8. Implement and use developmental strategies that will increase the agency's personnel in the areas of professional discipline, communication, and deafness.
9. Provide incentives for staff to upgrade their sign communication skills.

10. Provide professional development opportunities for all personnel who serve this disability group.
    - Include supervisory staff in training activities;
    - Provide ongoing training based on individualized developmental plans;
    - Provide resources for self-paced learning;
    - Encourage ongoing communication skill development through tuition reimbursement, tutoring, release to attend classes, etc.
11. Recognize and use strategies to retain employees in the service delivery area, including flexible schedules, development, clear performance feedback, and production goals reflective of caseload demands.
12. Regularly bring together all direct service delivery staff who work in partnership with individuals who are LFD to share, problem solve, and receive information on new developments and technologies that can benefit their consumers.
13. Include training activities to upgrade staff skills in the rehabilitation of individuals who are LFD in the annual in-service training plan and the annual RRCEP planning.
14. Include the needs of individuals who are LFD as a special topic of study in master's in rehabilitation programs that have a deafness emphasis.

6 Assessing Services and Making a Commitment: State-Federal VR Program

Need to Assess Level and Quality of Services

In State VR Agencies, because of communication/cultural barriers and a lack of awareness, administrators, managers, and other staff who are not directly involved with consumers who are deaf often misunderstand their needs. In many instances, these rehabilitation professionals may not even be aware of the subpopulatiqn of individuals who are LFD who have even more unique and multiple needs than the general deaf population.

The consumer who is LFD requires a wide range of services and new, flexible, and creative methods of service delivery (Gough, 1996). They will usually not benefit from traditional VR programs. Therefore, establishing the commitment and developing the framework for serving this population in State VR Agencies has been limited at best and in many cases almost nonexistent.

With each of the Amendments to the Rehabilitation Act, the field of deafness rehabilitation has experienced progress. Since the mid-1970s, VR program development and staff training have focused on accessing persons who are culturally Deaf and signing to its service delivery system. In recent years, rehabilitation professionals have begun to recognize that individuals who are deaf have different needs than those who are hard of hearing. Thus, this "one-size-fits-all" approach to services and staff development is no longer appropriate and is not effective for other subcategories of consumers with hearing loss, such as individuals who are LFD (Boone,

Schroedel, Watson, & Anderson, 1996). At the national level, attention to the needs of consumers who are LFD and services that are available to them has fluctuated depending on availability of funding and priority of initiatives.

Through the years, rehabilitation administrators have been faced with a number of issues related to providing services to consumers who are LFD. Prior to the 1992 Amendments, consumers who were LFD were often determined to be ineligible for services because they did not meet the reasonable expectation for gainful employment criterion. Since the 1992 Amendments' focus on serving individuals with more significant disabilities, more consumers who are LFD have been accepted for VR services. The 1998 Amendments, with strengthened presumption of benefit and trial work mandates, will open the door to most of this target population. However, the dearth of service providers and other professionals skilled in serving this population has frequently resulted in long-term cases and limited success. Consumers who are LFD also tend to have a high rate of "recycling," or being served by different counselors as staff turnover occurs and different approaches are used with still mostly unsuccessful results.

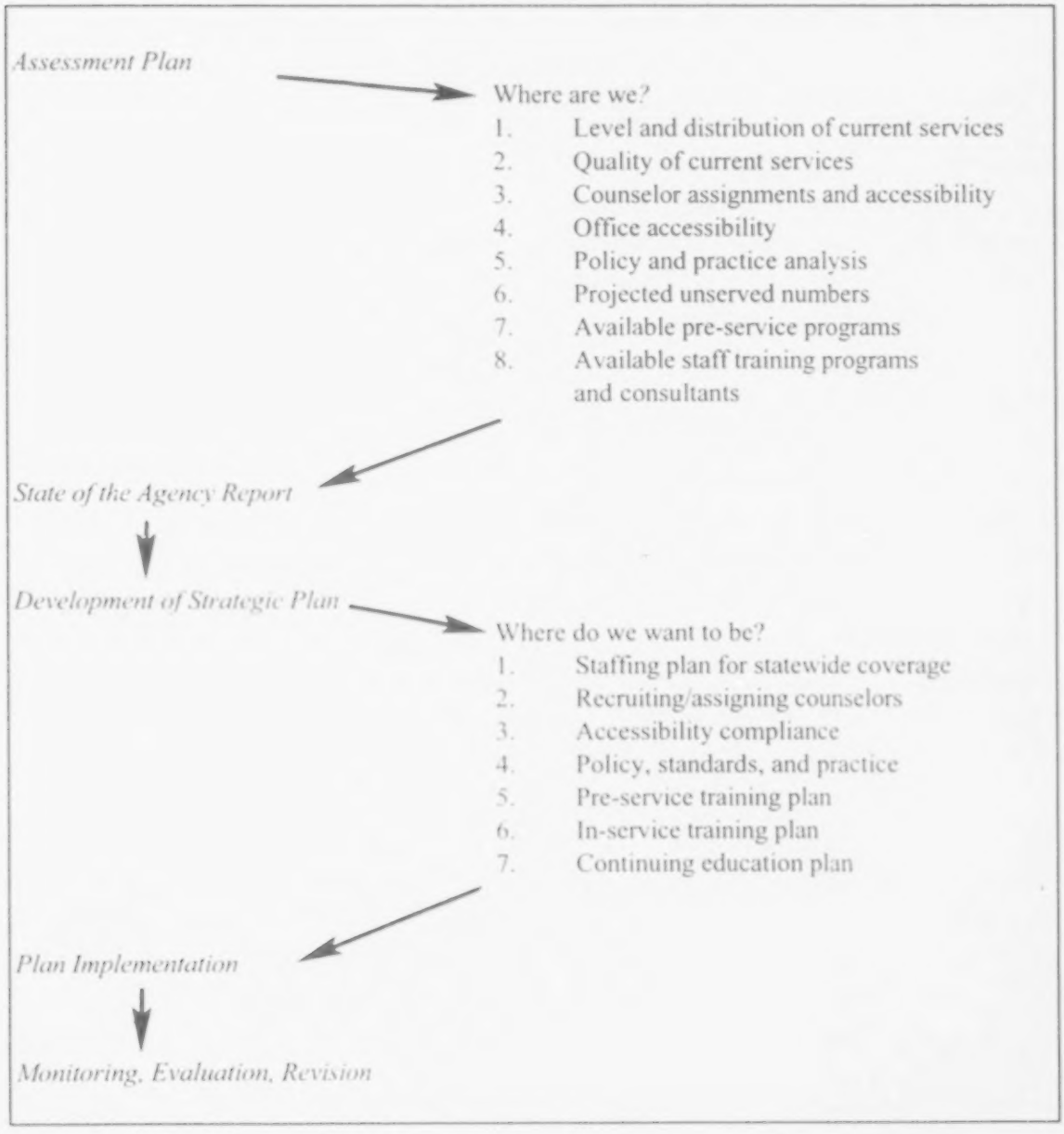
In accepting the challenge to expand quality services to individuals who are LFD, it is important for top administrators to understand that this population has unique needs that transcend the need for a sign language interpreter—that to successfully rehabilitate an individual who is LFD, the direct service professional must understand the individual's communication mode and level, the effects of minimal language functioning, and the psychosocial effects of language deprivation. Staffing, training, and other decisions about how to meet these needs must be made. Administrators must answer the following questions:

- Where are we now in serving individuals who are LFD?
- Where should we be?
- How do we get there?
- What resources and technical assistance will we need?

Assessment and Strategic Planning

The foregoing questions can be addressed through the assessment/planning procedure outlined in Figure 6.1. Details for following this assessment model can be found in *Rehabilitation of Individuals Who Are Hard of Hearing and Late Deafened: Administrator's Guide* (University of Arkansas, 1993), of which this is an adaptation. The guide is available through the Oklahoma Clearing House.

Figure 6.1—Model Assessment of Current Agency Status


Assessment Plan
Where are we?
1. Level and distribution of current services
2. Quality of current services
3. Counselor assignments and accessibility
4. Office accessibility
5. Policy and practice analysis
6. Projected unserved numbers
7. Available pre-service programs
8. Available staff training programs and consultants
State of the Agency Report
Development of Strategic Plan
Where do we want to be?
1. Staffing plan for statewide coverage
2. Recruiting/assigning counselors
3. Accessibility compliance
4. Policy, standards, and practice
5. Pre-service training plan
6. In-service training plan
7. Continuing education plan
Plan Implementation
Monitoring, Evaluation, Revision

When assessing current service level, it is important to look at both the current numbers served and the quality of services provided to this population, as well as projected unserved numbers and unmet need statewide, since many individuals who are LFD may have slipped through the cracks.

Making the Commitment: State and Federal

State VR Agencies

Once the level and quality of services to individuals who are LFD have been assessed, the State VR Agency administrators must commit the time and money necessary to appropriately serve this clientele—including planning, staffing, pre-service training, in-service training, and continuing education. It is critical that the philosophy and commitment to serve this population be communicated to the first-line supervisor, counselor, and other service providers so that casefinding, staff development, and provision of services (including nontraditional services) will be encouraged. The philosophy and commitment of the State VR Agency to provide services to individuals with the most significant disabilities, including consumers who are LFD, must be continually communicated. Another way to view this is a "common-sense approach." Unless there is agreement at the top and at the front lines that the consumer who is LFD is a priority, attempts to enhance services will continue to be inconsistent and nonproductive.

This commitment must also be reflected by funding for direct services for consumers who are LFD, development of resources/programs, and staff development for personnel working with this population. Numerous reasons have been offered to explain why persons who are LFD have been unable to access appropriate and adequate services. At the federal level, most money spent on programs for people who are deaf has gone toward services for a minority of the population (i.e., those who were likely to succeed in postsecondary education) (COED, 1988). This trend has also been evident at the state level, with services directed primarily to "high-functioning" individuals who are culturally Deaf.

Some specific areas that need consideration and financial commitment include compensatory pay for staff who have achieved communication competency and additional funding to sponsor consumers who are LFD in specialized in-state and out-of-state programs. Emphasizing changes brought about by the recent Rehabilitation Act Amendments that stress serving the most significantly disabled population, State VR Agencies will not be able to deny services to persons

who are LFD even if those services currently do not exist in their state. Therefore, utilization of appropriate out-of-state programs for consumers who are LFD will be required until comparable services can be established at the state level.

Federal Level

As emphasized throughout this document, VR services to consumers who are LFD have fluctuated since State VR Agencies began addressing the needs of individuals who are deaf more than twenty years ago. Availability of services to the consumer who is LFD has often mirrored federal initiatives. When programs and research have been funded at the federal level, some states have attempted to serve this most significantly disabled group. Likewise, when federal focus on individuals who are LFD has waned, State VR Agencies often struggled to provide basic services in light of competing disability groups with stronger "voices."

At the 1998 convention in San Antonio, TX, the National Association of the Deaf, the nation's largest consumer-based organization of individuals who are deaf, passed a mandate to work to ensure that the federal government gives high priority to the needs and issues of consumers who are LFD.

The National Association of the Deaf mandate was recently supported by recommendations of the four regional programs currently funded to provide technical assistance to postsecondary programs for persons who are deaf and hard of hearing—known as PEPNet. In April 1998 PEPNet issued a joint statement that the needs of persons who are LFD are so complex as to be outside the capacity of the standard postsecondary services system.

In 1988, the Commission on Education of the Deaf recommended that regional service centers be established to make specialized services available in all regions of the country. This recommendation recognized that because this population is a subgroup of an already low-incidence population, professional expertise and resources must be made available with leadership from the federal government.

NIDRR previously funded a five-year grant for a rehabilitation research and training center (RRTC) specific to persons who are LFD. This priority opened for another competition, but a center was not selected and the priority was eliminated. The research tasks related to this population were added to the responsibilities of the University of Arkansas (RT-31). Critical

research questions specific to consumers who are LFD need to be addressed. One such issue is the need to develop assessment tools to identify and address language-related deficits in consumers who are LFD, in which language and communication difficulty is a defining characteristic. The absence of such a tool contributes to the ongoing misdiagnosis of persons who are deaf and reduces the capacity of professionals to address these issues.

In addition to the history of sporadic federal support for services for the LFD population, the new Workforce Investment Act brings some additional concerns to states facing the mandates to provide all services needed by the local workforce in a comprehensive "one-stop shop." It may be difficult to address the complex needs of persons with the most significant disabilities, such as persons who are LFD, using this approach.

Recommendations Specific for the State VR Agency and State-Federal VR Program

State VR Agency

1. Conduct a formal assessment of the agency's current quality and scope of services for individuals who are LFD and develop a strategic plan that will ensure equal outreach, access, and quality of services for this population.
2. As new programs are developed, including one-stop centers established through the Workforce Investment Act, consider how individuals who are LFD will be accessed and accommodated. Provide technical assistance as needed.
3. Consider the needs of individuals who are LFD in the development of cooperative agreements.
4. Address holistic needs of persons who are LFD (such as independent living skills training, basic education, and communication and language training) through policy modifications or collaborative efforts with other agencies so that they are enabled to achieve a successful employment outcome.
5. State VR Agencies that prohibit out-of-state referrals should develop a process to allow justification for use of out-of-state programs for persons who are LFD.

OSERS

1. Encourage RSA to conduct a national forum of state coordinators for the deaf and state coordinators for the deaf-blind or designated staff to be held biennially. These forums would provide opportunities for collaboration, networking, and sharing information about model programs and services. The first forum should focus on implementation of findings of this IRI document on improving VR services and employment outcomes for individuals who are LFD.
2. Encourage RSA to establish appropriate disability coding (911 data) for individuals who are LFD for the purpose of collecting and tracking data related to VR services and this population.
3. Encourage OSERS to fund a minimum of four regional service centers to provide specialized direct services for individuals who are LFD.
4. Encourage NIDRR to again fund a research and training center for LFD or to increase the funding to RT-31 at the University of Arkansas to enable that group to appropriately address this population in their priorities.
5. Encourage NIDRR to develop a priority, either within a research and training center or in research-related competition, for the development of an ASL assessment method for use with adults to establish a baseline functioning level and identify specific language-related deficits of adults who are LFD.
6. Encourage funding of a training and technical assistance network to assist professionals and programs serving individuals who are LFD that parallels the PEPNet structure and regions.
7. Explore development of a new person-centered term for "individuals who are deaf and low-functioning" that is less stigmatizing, along with a plan to educate legislators, agencies, organizations, and consumer groups of the language change so that an effective transition will occur.
8. Encourage VR services to be made more culturally accessible to Hispanic, African American, Asian, and Native American individuals who are LFD.
9. Encourage development of a valid assessment method, for use by deafness rehabilitation professionals, to determine the ASL fluency of individuals who are LFD.
10. Encourage VR agencies to provide transition services to individuals who are fourteen years of age or younger.
11. Develop a national listing of applicants for RCD positions on the Internet.

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APPENDICES

1 Workforce Investment Act of 1998

On July 30 and 31, 1998, the Senate and House respectively passed the conference agreement on the Workforce Investment Act of 1998 (H.R. 1385, House Report 105-659), which rewrites federal statutes governing job training programs, adult education and literacy, and VR. The Act is intended to provide a more coordinated, customer-friendly, locally driven workforce development system. In many respects, it "codifies" the one-stop career center system approach that has been under way in states for several years and supported, in part, by grants from the Department of Labor. President Clinton signed the bill on August 7, 1998 (Public Law 105-220).

The One-Stop Strategy

Governance and Partners

The state workforce investment board is required to work with the governor to develop a statewide workforce investment system that includes a one-stop service delivery system with over 12 mandated one-stop partners.

The board and the governor also designate local workforce investment areas. Based on criteria developed by the governor and the state board, the chief LEO appoints a local workforce investment board that must include a majority representation of business entities, the local one-stop partners, and other required stakeholders. The local board is responsible for designating local one-stop operators; identifying providers for youth services, intensive services, and training services; and designing, implementing, and overseeing the ongoing operation of the local one-stop system.

Partners in the one-stop system include unemployment insurance, employment services, veterans employment services, Job Training Partnership Act, TAA/NAFTA, Title V of the Older Americans Act, vocational education, adult basic education, public two-year colleges, VR, service providers utilizing community services block grants, Housing and Urban Development employment programs, Job Corp centers, and other partners as locally determined.

Any local entity may be designated by the local board to provide services. Such entities may include institutions of higher education; employment services offices established under the Wagner-Peyser Act; private, nonprofit organizations (including community-based organizations); private for-profit entities; agencies of local government; and other organizations of demonstrated effectiveness (which may include local chambers of commerce). The bill prohibits the designation or certification of elementary and secondary schools as one-stop operators.

The local board, chief elected official, and governor are encouraged to retain existing one-stop delivery systems where such systems have been established, are effectively and efficiently meeting the workforce investment needs of the local area, and are performing to the satisfaction of the local board, chief elected official, and governor.

Local boards may provide training services with a waiver from the governor based on the lack of available providers in the area. Services delivered by all one-stop partners must be coordinated through the one-stop system, and all partners must complete a memorandum of understanding with the local board.

Workforce Investment Activities

The bill requires establishment of a one-stop delivery system in each local workforce investment area. Such local systems shall provide core services (including Wagner-Peyser services) and access to intensive services, training, and related services. There must be at least one physical location in each local workforce development area where participants can receive all of the core services and through which they may access more intensive employment and training services.

At a minimum, core services include:

A. Eligibility determinations for intensive and training services

B. Outreach, intake (which may include worker profiling), and orientation to the information and other services available through the one-stop delivery system

C. Initial assessment of skill levels, aptitudes, abilities, and support service needs

D. Job search and placement assistance and, where appropriate, career counseling

E. Provision of employment statistics information relating to local, regional, and national labor market areas, including
   — Job vacancies
   — Job skills necessary to obtain the job vacancy listings
   — Local occupations in demand and the earnings and skill requirements for such occupations

F. Provision of performance and program cost information on eligible providers of training, services, youth activities, adult education, postsecondary vocational education, and VR program activities

G. Provision of performance information on the local area, including the local one-stop delivery system

H. Provision of information on supportive services, including child care and transportation, available in the local area, and referral to such services as appropriate

I. Provision of information on filing claims for unemployment compensation

J. Assistance in establishing eligibility for financial aid programs, including welfare-to-work

K. Follow-up services, including workplace counseling, for participants in workforce investment activities authorized under this subtitle who are placed in unsubsidized employment, for not less than 12 months after the first day of employment, as appropriate

Intensive services may include:

A. Comprehensive and specialized assessments of the skill levels and service needs of adults and dislocated workers, which may include
   (i) Diagnostic testing and use of other assessment tools
   (ii) In-depth interviewing and evaluation to identify employment barriers and appropriate employment goals

B. Development of an individual employment plan, to identify the employment goals, achievement objectives, and combination of services for the participant to achieve the employment goals

C. Group counseling

D. Individual counseling and career planning

E. Case management for participants seeking training services

F. Short-term prevocational services, including development of teaming skills, communication skills, interviewing skills, punctuality, personal maintenance skills, and professional conduct to prepare individuals for unsubsidized employment or training

The State VR Agency has responsibilities for data, including the following:

- Consult with state and local employers, participants, and local workforce investment boards about the labor market relevance of the data to be collected and disseminated through the statewide employment statistics system
- Consult with state and local educational agencies concerning the provision of employment statistics in order to meet the needs of secondary school and postsecondary school students who seek such information; and collect and disseminate for the system, on behalf of the state and localities in the state, the information and data described in the plan
- Maintain and continually improve the statewide employment statistics system
- Perform contract and grant responsibilities for data collection, analysis, and dissemination
- Conduct such other data collection, analysis, and dissemination activities as will ensure an effective statewide employment statistics system
- Actively seek the participation of other state and local agencies in data collection, analysis, and dissemination activities in order to ensure complementarity, compatibility, and usefulness of data
- Participate in the development of the annual plan
- Utilize the quarterly records to assist the state and other states in measuring progress on state performance measures

Use of Youth Funds

Programs providing youth activities under the bill must include elements such as tutoring, study skills training, and instruction leading to completion of secondary school (including dropout prevention strategies) or alternative secondary school services; summer employment opportunities directly linked to academic and occupational learning; paid and unpaid work experiences as appropriate (including internships and job shadowing); occupational skill training; leadership development opportunities; supportive services; adult mentoring; follow-up services; and com-

prehensive guidance and counseling (which may include drug and alcohol abuse counseling and referral). At least 30% of youth funds must be used to provide services to out-of-school youth.

Title III—Workforce Investment-Related Activities does not mention the involvement of State VR Agencies.

21st Century Workforce Commission

The bill establishes the 21st Century Workforce Commission to conduct a study of all matters relating to the information technology workforce in the United States. The commission will be composed of 15 members (8 from business, 1 from labor, 2 from state and local government, 3 from education, and 1 from information technology research). The secretaries of Education and Labor serve as ex officio members of the commission.

Title IV—Rehabilitation Act Amendments of 1998

This title includes Amendments to the Rehabilitation Act and other related programs and services and requires linkages between programs under the Workforce Investment Act of 1998 and the Rehabilitation Act of 1973.

2 Outreach and Supported Employment: Case Studies

Case Study I

Ann, a 43-year-old woman who is deaf, was referred to CPD to determine if she could acquire sufficient skills to live alone, learn a skill to enter work, and communicate with others using her limited sign vocabulary.

Background Information

Ann lived alone in her parents' home in a small rural town in Ohio. She had one older brother and her parents were deceased. She had some support from aunts and uncles who communicated with her through gestures.

Ann never attended school nor was she ever competitively employed.

Vocational Goals

When asked, Ann stated that she was interested in cleaning and cooking. She had experience in these areas from her home life. She also stated that she would be interested in stock clerk work.

Standardized Tests and Work Samples

On dexterity tasks, Ann's performance fell mainly in the average range. Her approach to these tasks was generally characterized by cooperation.

Work Habits and Behavioral Observations

Ann's attendance was perfect and she was always prompt. Her appearance was always neat and clean.

Ann has been very protected, and this was her first experience away from home and family. Her parents would not allow her to attend school or training. Now that they are deceased, she is dealing with many changes.

Her adjustment at CPD was difficult at first. She cried daily, wanting to go home. She was overwhelmed with the city, public buses, and interacting with other students who are deaf.

While in Columbus, she was placed in a living situation with a family with a member who was deaf. They worked very hard with her and she began to adjust. She learned quickly.

Communication

Ann communicated through sign language. Her expressive sign language skills were good, her receptive sign skills were fair, and her speech was unintelligible.

Ann's vocabulary was very limited. She was able to express her needs and wants but did not have the sophistication of the language.

Functional Limitations

- Profound hearing loss
- Low academic skills
- Lack of independent living skills
- Immaturity
- Reduced environmental, societal, and experiential awareness
- Lack of coping skills

Strengths

- Good dexterity skills
- Ability to concentrate on tasks

Vocational Limitations

- Difficulty working where verbal communication is required
- Difficulty using the telephone
- Difficulty working where reading is required
- Difficulty completing a job search independently
- Difficulty working under pressure
- Difficulty controlling frustration levels
- Difficulty maintaining an even temperament on the job
- Difficulty cooperating with others
- Tendency to misunderstand/misinterpret others' behavior
- Difficulty understanding duties that cannot be easily demonstrated

Independent Living Skills Units Covered

- Banking
- Menu planning
- Grocery shopping
- Cooking/measuring
- Grooming
- Vocabulary
- Birth control
- Career awareness
- Deaf services
- Community services

Community Work Experiences

- Housekeeping
- Dishwashing

Placement

On April 11, 1994, Ann was placed at a restaurant doing dishwashing, food prep, and light janitorial work. She works 20 to 30 hours per week for $4.50/hour.

Case Services Completed

- Received a hearing aid
- Received birth control
- Received glasses
- Received dentures
- Received help with wedding arrangements

Job Coaching Services

- Orientation
- Training
- Connection with MR/DD case manager for continual support
- Interpreting
- Follow-up
- Work on consistent speed
- Assistance in updating Social Security card, state ID, bank account, etc.

Ann came to CPD with little language skills, minimal reading and writing skills, and few independent living skills. With the services CPD provided, her VR counselor's support, and MR/DD's long-term follow-up, Ann is now working, is married to a retired gentleman who was deaf, and is living independently at a retirement home called Columbus Colony. She is active in church and enjoys socializing with other Columbus Colony residents who are deaf.

Case Study II

Bob, a 29-year-old man who is deaf, was referred to CPD to determine if he had appropriate skills for work. Bob also had a violent temper, and it was questionable whether or not that could be controlled. Bob was severely developmentally delayed and possibly mentally retarded and, therefore, an independent living skill assessment was also requested.

Background Information

Bob spent the first eight years of his life with his parents and four siblings in Toledo, Ohio. He attended the Ohio School for the Deaf in Columbus, Ohio for a few months. He was expelled from this school due to his violent outbursts. He was then sent to the Columbus State Institute, where he grew up and was cared for. He did not attend school nor did staff communicate with him via sign language. In his early 20s, Bob was discharged from the Columbus State Institute and returned home to Toledo. His VR counselor placed him in a factory job, and he lived in an apartment above the house of his grandmother, whom he adored.

Bob was fired from his placement in Toledo due to his temper. His VR counselor referred him to CPD for an assessment and possible services.

Vocational Goals

Bob was interested in manual work and gravitated toward janitorial services. He prided himself on his strength.

Standardized Tests and Work Samples

It took Bob more time than most to comprehend the directions for the various tests; however, once he understood what was being asked of him, he completed each task. His performance fell slightly below the average range.

Work Habits and Behavioral Observations

Bob's attendance and punctuality were perfect. His appearance was always neat and clean.

Bob isolated himself from his peers. He was not able to carry on conversations or ask questions of others. He felt more comfortable with the staff and considered them his friends. Bob always tried to please the staff and sought validation from them.

Communication

Bob primarily used gestures to communicate. His stories are quite clear and understood by all. He knows a few limited signs such as mother, father, milk, cookie, etc. Often he confuses the signs; for example, he may mouth mother but use the sign for father.

Functional Limitations

- Profound hearing loss
- Low academic skills
- Reduced environmental, societal, and experiential awareness
- No reading ability
- Lack of coping skills
- Learning disability
- Violent temper
- Anti-social tendency

Vocational Limitations

- Difficulty working where verbal communication is required
- Difficulty using the telephone
- Difficulty working where reading is required
- Difficulty completing a job search independently
- Difficulty understanding duties that cannot be easily demonstrated
- Difficulty controlling anger

Strengths

- Good body strength
- Eager to please those in authority (bosses)

Services Delivered

- Tutoring in vocabulary, ASL, career awareness
- Community work experiences involving warehouse work and janitorial work

- Assistance in getting a hearing aid, glasses
- Setting up of doctor appointments to monitor high blood pressure
- Counseling regarding temper
- Referral to mental health facility
- Referral to MR/DD case manager for long-term needs

Placements

CPD placed Bob on three different jobs. Each job had responsibilities that he could assume and carry out as required by the employer. At each job site Bob got along well with the supervisors, but not with his coworkers. He remained at each job for approximately two years. At that point, something always happened that resulted in Bob losing his temper and getting fired. He is currently on his fourth placement as a janitor and is doing very well.

Natural Support

For the past 15 years, Bob has had a natural support who volunteers her time to assist him in whatever is needed to keep him employed. Services she typically provides are counseling in money management; guidance in paying bills; interpreting letters, mail, and memos from work; setting up doctor appointments, etc. Bob works with the natural support several times a month and continues to see his MR/DD case manager every other month.

3 Communication Assessment Case Study

Name: Ned Jones *(note: names have been changed)*
Address: 101 Bronx Street
Medium City, IL
Phone: 159-765-4321 voice
Birth date: 09/13/61
SS: YYY-YYY-YYYY
Case # XXXXXXX

Reason for referral: Assess Ned's communication skills in his home and work environments and develop recommendations for improving his language skills. The referring counselor notes, "Ned has mental retardation and we would like an assessment of his communication skills." The preferred outcome for him would be to participate in the development of his rehabilitation program.

Sources of Information/Background

Materials Reviewed

02/17/82	Report of audiologic evaluation
02/17/82	Psychological report
08/05/82	Vocational evaluation summary
07/22/82	DVR facility evaluation report

Assessment Techniques

05/15/98	Interview with Ned's mother and sister at Center for Sight and Hearing
05/15/98	Interview with and observation of Ned at the Center for Sight and Hearing
07/30/98	Interview with and observation of Ned at Standard Products, on Medium City Mass Transit bus, and his home
07/30/98	Interviews with Mike Johnson, rehabilitation supervisor for DPS at Standard Industries, and several of Ned's coworkers
07/30/98	Interview with Ned's stepfather and mother at his home

Identifying Statement

Ned is a 36-year-old single white male who currently lives with his parents in a house in Medium City, IL. His overall physical health is good. He is short (slightly over 5 feet) and of average stature. Currently, he is employed and receives Social Security survivor's benefits. His personal goals were not available or stated.

Medical Information

Primary disability:	Deafness
Secondary disability:	Moderate to severe mental retardation
Tertiary disability:	Seizure disorder

Ned has a congenital, profound bilateral hearing loss with unknown etiology. In the past he used hearing aids, but he does not currently use one. Test records from 1983 indicate the presence of retardation. There continues to be an obvious impaired ability to perform several life functions, and these behaviors support this diagnosis. While seizure disorder has been diagnosed, his mother reports that he has been seizure-free for many years. He has been off medication for seizures for about the last twenty years. He does not use alcohol or tobacco products.

Social

His primary social contacts are with and through his family. Peer friends through his employment were reported, and he does see them as opportunities are created by DPS. Peers his age can and do communicate with him at a most basic level at the work site. He likes cartoons at

the local theater and goes shopping with his family and occasionally goes to a restaurant for recreational activities.

Technology

Technology used in his home is a closed-captioned television. There were no signaling or alerting devices in his home or at the work site.

Education/Training

Ned received a certificate of completion from Park High School in 1982. He has participated in a sheltered employment program since that time. There is one record of formal education/training after 1983 and that is some sign language training through the Center for Sight and Hearing.

Vocational

Ned has no record of competitive work, but he has about fifteen years of sheltered employment experience through DPS, Inc.

Communication

Reported expressive communication includes gestures, behaviors, unintelligible vocalizations, and some facial expressions (smiling). He knows some sign language but the full extent of his language is not known. Receptive communication includes use of contextual clues, visual sign language, and gestures.

Observations

Interview with Ned's Mother, Stepfather, and Sister

Their reports are consistent with those given by the referring counselor. Ned is able to perform most of his personal care. He is able to follow a routine and to tolerate changes, especially if told in advance; however, he is dependent on someone to wake him in the morning. He makes his own bed and can assist with meal preparation, though this was not observed. His mother reports that he bathes himself, except she washes his back. She also does the laundry and lays out his clothes

for him. Though usually in good health, he is able to mime or point to a body part (e.g., stomach, head) when ill. His communication personality is described as dependent, in that he usually waits for a stimulus (food on the table) or a combination verbal/mimed command ("eat") before responding. He usually indicates what he likes by accepting the item or activity and what he dislikes by refusing the item or by standing and leaving the area. This action is combined with an appropriate accompanying facial expression. He also uses some vocalizations, e.g., "no," "mom," or "wow." He initiates greetings with known neighbors and coworkers.

The primary form of communication in the home with Ned is speech and gestures with some sign language. He will greet people with a wave or a hug and gets attention by waiting for the other person to figure out what he wants, pointing to an object (e.g., empty milk glass), or taking the person to the item.

Interview with Mike Johnson

The primary form of communication used with Ned is speech that is reinforced with gestures and some basic signs (mostly nouns). Mr. Johnson has an established relationship with Ned and knows Ned's communication style. Mr. Johnson reports the following:

- Ned will initiate conversation if it is something personal (i.e., his birthday, new shoes or clothing, something about his dog, etc.) and once the conversation is started, he repeats it several times.
- Ned will not initiate other direct communication about work (i.e., he is out of work materials, task at hand is finished, etc.), nor will he seek information if he does not understand the task at hand.
- He is accepted by his peers and interacts with them on both a personal basis (as a team member) and social basis (at breaks).
- Some peers know or attempt to use signs with Ned.
- He does use his voice to indicate feelings of pleasure, upset, approval, etc., by grunting or calling out.

Other Observations

Regarding personal hygiene, Ned dresses appropriately for the situation, as he wore jeans and a T-shirt on both days. On the first day of evaluation he had a body odor noticeable at two to three

feet, but he had none on July 30th. He appears to have teeth in need of care, as they are yellowed and there is a noticeable odor at approximately 12 to 18 inches.

On a social level, Ned is quite personable and friendly. He maintains eye contact and is aware of turn-taking in conversations. He maintains a positive affect with his smile and look of intent as if he is listening to the other person. This evaluator had numerous interactions with him and generally he was passively receptive and copied most of the signs. Initial rapport was easily attained, and he appeared to have a genuine interest in communication as shown again by his attentiveness and maintenance of eye contact.

At Standard, Ned was an active watcher of communication occurring around him and initiated communication with his peers. Upon my arrival at Standard, he pointed to me and waved several times. As he was working, I did not approach him until he was on break. At this time he would make eye contact and wave to a peer or Mr. Johnson, give my sign name, point to himself, and point back to me while shaking his head yes and smiling. This was clearly an expression to others that he had a visitor and he wanted them to know my sign name. I also observed him to initiate conversations with coworkers to ask them to move, to give a high five, and wave goodbye.

I had several context-specific conversations with Ned in which we were able to communicate. For example, upon leaving Standard, we went to the parking lot and Ned stopped and looked at the cars. I signed "no" and fingerspelled "bus" then signed "you me go home bus" and he took me to the bus stop. We followed two of his peers and I signed to him "we go where?" He pointed to the two peers and signed "those two right (east)" "you me left (west)." At the intersection we crossed the street and then caught a westbound bus as his peers caught an eastbound one. During the ride home, I asked several times where we were to get off and he would give a slight smile, signal with a natural gesture to stay put and then look slightly outside and give a slight head nod "no." At the bus stop to change buses, I was told by a driver to ride the Park bus and when I walked up to it, Ned shook his head and pointed to the MP bus. Following his lead, we arrived at his home.

Mobility is not a problem for Ned. He has no ambulation difficulties and is able to use the public transportation system. His route home is about an hour and requires one change. At the change site, there are several buses arriving and departing, and he is able to choose the correct one.

Communication

Ned uses his vision for input and did not appear to use any residual hearing. He was able to see gestures or signs to follow commands with contextual cues. Communication with formal language was observed when he was given a direct command or question. Several spontaneous uses of formal language were observed. Throughout the day his affect was attentive and alert. He does copy signs in an echolalic manner.

Expressive skills:	Primary:	Gestures, behaviors
	Secondary:	Iconic signs
Receptive skills:	Primary:	Gestures/environmental cues
	Secondary:	Iconic signs

Examples of observations are described below.

- On the 15th he was able to give the correct sign for over 50 common nouns, i.e., coke, car, bowl, numerous food and kitchen items, etc., with the stimulus question of "sign and then point to object."
- When given a direct question for which he knows the answer, he will copy the question and then add his response to the end. For example, given signs "you name what?" he responded with the exact signs in the order given and added his name after them. This was repeated on almost all direct questions when he was able to give an immediate response.
- When given a direct question for which he is unable to respond, he has a series of mannerisms which he initiates and repeats up to three times until asked another question. Then he will shrug his shoulders in the universal "do not know" posture. These mannerisms are quite complex and give the impression he is thinking. They include placing his index finger on the side of his head while moving his head sideways and gazing up; shifting this mannerism to the other side; dropping both hands to his side, tilting his head forward while looking intently forward; and resting one arm on the other like propping his elbow on his other closed hand and assuming a thinker pose. Several of these mannerisms were assumed during both days of evaluation, and they all indicated he did not know the answer to the inquiry.
- For the most part, Ned did not initiate conversations other than the social ones described above. However, at his home he did sign to me "what, what?" when his parents were

talking about him and looking at him. He seemed to be asking me what was happening and what were they saying. I did not interpret their conversations but I did sign when I spoke with his parents to help him to cue into the conversation at hand.

- At home and the work site, Ned does receive some information in sign from his mother, sister, and supervisor. This communication is usually from them to Ned and not in the other direction. If the context is known he does respond appropriately. For example, when the supervisor instructed the workers to close early and clean the shop area, Ned knew what to do as he began immediately to put up stools and pick up litter from the floor.

Ned is able to understand and respond to present tense commands with environmental cues.

Academic Skills

Functional academic skills displayed by Ned include the ability to write the alphabet, write and say numbers from 1 to 20, and functionally count to five. He recognizes all coins and a $1 bill. Even though he is unable to count money he knows to have two quarters for the bus. He is able to sign his name. At the work site, he showed me how the different size containers were stored in bins with numeric coding and how he matched the needed or stored box with the number on the bin. The Wide Range Achievement Test, Revision 3, Blue Form (1993) was administered. The results are:

Reading grade score	Entering first grade
Arithmetic grade score	Kindergarten

Ned cooperated during this test. He did not write, and the math section was done through signs and gestures.

Summary

Ned communicates primarily through response to gestures, iconic signs, behaviors, and environmental cues. He has a dependent and gentle communication style and lives in a supportive and caring home. Significant persons in his environment are able to communicate with him using a combination of simple iconic signs and gestures. No formal language is used and therefore family

and friends have developed a system of understanding his wants through environmental/ behavioral cues. This has served not only to stifle language development but also to delay the development of the personal and social skills necessary for his independence. While some level of mental retardation is present, probably due to some organic problem, he is still able to learn rather complex tasks and make his wants and needs known. He has developed a level of socialization that he uses to meet and maintain acquaintances at both his home and work.

Recommendations

Medical Intervention: Due to the obvious mouth odor and discoloration of his teeth a complete dental examination is in order.

Daily Living Skills Intervention: At home, Ned needs to be more involved in food preparation, clean-up, and other daily living skills. This should lead to development of a shopping list and actual purchase of the food. Other instructional areas include washing his own back, selecting his own clothing, folding and storing of clothes, etc. A rehabilitation instructor familiar with daily living skills instruction could provide this service.

Technology Intervention: Several items could enhance Ned's level of independent functioning and personal safety:

- Flashing/vibrating alarm clock
- Flashing doorbell alert
- Flashing smoke detector at home and the work site
- Flashing light on the forklift used at the work site

Until such time as these signaling/alerting devices are installed, a buddy system needs to be put into place.

Communication Intervention: The daily living interventions are recommended to provide opportunities for interaction and development of a language system. Ongoing sign language training is needed in the home, as well as instruction in iconic and directional signs for staff and coworkers at Standard. This training needs to be simultaneous with sign language tutoring with Ned.

4 Websites in Rehabilitation

Websites on Rehabilitation

California School of Professional Psychology at San Diego
Rehabilitation Research and Training Center for Persons
Who Are Hard of Hearing or Late Deafened

http://www.hearinghealth.org/

The California School of Professional Psychology-San Diego (CSPP-SD) was awarded a grant from the U.S. Department of Education, NIDRR, to establish a rehabilitation research and training center (RTC) for persons who are hard of hearing or late-deafened. CSPP's RTC is composed of a multidisciplinary team of professionals with a history of commitment to improving the quality and accessibility of mental health services to this underserved population.

California School of Professional Psychology-San Diego
6160 Cornerstone Court East
San Diego, CA 92121-3725
Voice: 619-623-2777

Helen Keller National Center for Deaf-Blind Youth and Adults (HKNC)

http://www.helenkeller.org

The mission of HKNC is to enable each person who is deaf-blind to live and work in his or her community of choice. This site includes links to state-level services.

HKNC
111 Middle Neck Road
Sands Point, NY 11050
Voice and TTY: 516-944-8900
TTY: 516-944-8637
Fax: 516-944-7302
E-mail: HKNCDIR@aol.com

The Minnesota Chemical Dependency Program for Deaf and Hard of Hearing Individuals (MCDPDHHI), Fairview Riverside Medical Center

http://home.earthlink.net/~drblood/minn/minnhome.htm

MCDPDHHI is a specialized program designed to meet the communication and cultural needs of persons who are deaf and hard of hearing in chemical dependency treatment.

MCDPDHHI
2450 Riverside Avenue South
Minneapolis, MN 55454
Voice: 800-282-3323
E-mail: MnCDDeafHH@aol.com

National Center for the Dissemination of Disability Research (NCDDR)

http://www.ncddr.org/

NCDDR is a pilot project designed to help NIDRR-funded researchers publicize the results of their research. It includes listings of NIDRR-funded projects and activities and information on the Interagency Committee on Disability Research (ICDR), which promotes cooperation among federal agencies and compiles statistics and other information concerning disability and rehabilitation research. It includes Department of Education announcements and online foundation and corporate grant listings.

NCDDR
Southwest Educational Development Laboratory
211 East Seventh Street, Room 400
Austin, TX 78701-3281
Voice/TTY: 800-266-1832 or 512-476-6861
Fax: 512-476-2286

National Clearinghouse on Rehabilitation Training Materials (NCRTM)

http://www.ncrtm.okstate.edu/

NCRTM provides a variety of disability-related training resources to those who serve persons with disabilities. The clearinghouse is funded by an RSA grant and is its sole clearinghouse.

Oklahoma State University
5202 Richmond Hill Drive
Stillwater, OK 74078-4080
Voice: 800-223-5219 or 405-624-7650
Fax: 405-624-0695

The National Institute on Deafness and Other Communication Disorders (NIDCD)

http://www.nih.gov/nidcd

NIDCD is one of the institutes that comprise the National Institutes of Health (NIH), the federal government's focal point for the support of biomedical research. Simply described, the goal of NIH research is to acquire new knowledge to help prevent, detect, diagnose, and treat disease and disability. NIH is part of the U.S. Department of Health and Human Services.

NIDCD Information Clearinghouse
1 Communication Avenue
Bethesda, MD 20892-3456
Voice: 800-241-1044
TTY: 800-241-1055
E-mail: nidcdinfo@nidcd.nih.gov

National Institute on Disability and Rehabilitation Research (NIDRR)

http://www.ed.gov/offices/OSERS/NIDRR/

NIDRR, a component of the U.S. Department of Education Office of Special Education Rehabilitation Services, provides leadership and support for a comprehensive program of research related to the rehabilitation of individuals with disabilities. NIDRR-funded projects include rehabilitation research and training centers, rehabilitation engineering research centers, research and demonstration projects, field-initiated research projects, and ADA technical assistance programs.

NIDRR
Switzer Building, Room 3060
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-2527

Voice: 202-205-8134
TTY: 202-205-5479
Fax: 202-205-8997

The National Rehabilitation Information Center (NARIC)

http://www.naric.com/naric

NARIC is a library and information center on disability and rehabilitation. Funded since 1979 by NIDRR, NARIC collects and disseminates the results of federally funded research projects. NARIC's document collection, which also includes commercially published books, journal articles, and audiovisuals, grows at a rate of 250 items per month. This site also contains links to over 600 rehabilitation-related resources on the web as well as the 1995 and 1996 NIDRR Program Directories.

NARIC
1010 Wayne Avenue, Suite 800
Silver Spring, MD 20910
Voice: 800-346-2742 or 301-562-2400
TTY: 301-495-5626
Fax: 301-562-2401

Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)

http://www.resna.org/

RESNA is an interdisciplinary association of people with a common interest in technology and disability. Their purpose is to help people with disabilities achieve their goals through the use of technology. RESNA serves that purpose by promoting research, development, education, advocacy, and the provision of technology, and by supporting the people engaged in these activities.

RESNA
1700 North Moore Street, Suite 1540
Arlington, VA 22209-1903
Voice: 703-524-6686
TTY: 703-524-6639
Fax: 703-524-6630

Rehabilitation Engineering Research Center (RERC) on Hearing Enhancement and Assistive Devices

http://www.hearingresearch.org/

The RERC on Hearing Enhancement and Assistive Devices is a national project funded by the U.S. Department of Education, NIDRR, and the Office of Special Education and Rehabilitation Services (OSERS). The project conducts research programs that promote technological solutions to problems confronting people who are deaf or hard of hearing.

The Lexington Center for the Deaf Research Division
30th Avenue and 75th Street
Jackson Heights, NY 11370
Voice: 718-899-8800

RERC on Information Technology Access

http://www.tracecenter.org/

Trace is a nonprofit research center that focuses on making off-the-shelf technologies and systems like computers, the Internet, and information kiosks more accessible for everyone through the process known as universal or accessible design.

University of Wisconsin-Madison Trace Research and Development Center
5901 Research Park Boulevard
Madison, WI 53719-1252
Voice: 608-262-6966

RERC on Universal Telecommunications Access

http://tap.gallaudet.edu/RERC_UTA.htm

The expansion and growth of telecommunications technology is designed to make communicating over the telephone easier, faster, and more efficient. But this is not always the case for people with disabilities. Voice mail is inaccessible to people who are deaf. Fax is inaccessible to people who are blind. Interactive voice systems are inaccessible to people who cannot use their arms. This RERC was funded to promote accessible telecommunications access.

Gallaudet University Technology Assessment Program
800 Florida Avenue, NE
Washington, DC 20002
Voice: 202-651-5257

University of Arkansas Rehabilitation Research and Training Center (RTC) for Persons Who Are Deaf or Hard of Hearing

http://www.uark.edu/depts/rehabres/

The University of Arkansas Rehabilitation RTC for Persons Who Are Deaf or Hard of Hearing (RT-31) was established in 1981. The mission of the center is to develop a coordinated, advanced program of rehabilitation research and provide training to rehabilitation research and service personnel to enhance the rehabilitation outcomes of persons who are deaf or hard of hearing. Funded by NIDRR, RT-31 is organizationally part of the University Department of Rehabilitation Education and Research in conjunction with the Arkansas Division of Rehabilitation Services.

University of Arkansas
4601 West Markham Street
Little Rock, AR 72205
Voice: 501-686-9691

Websites Related to Postsecondary Education

College and Career Programs for Deaf Students

http://gri.gallaudet.edu/colleges.html

This is a guide to most U.S. and Canadian colleges that offer special programs or services for students who are deaf and hard of hearing. It describes many of the programs available, listing career areas of study and special services. It is jointly produced by Gallaudet University and the National Technical Institute for the Deaf.

Gallaudet University

http://www.gallaudet.edu

Gallaudet University is the world's only university for undergraduate students who are deaf and hard of hearing. Graduate-degree programs and continuing education courses are available to students who are deaf, hard of hearing, and hearing. A variety of information about individuals who are deaf or hard of hearing is also available through the university.

Gallaudet University
800 Florida Avenue, NE
Washington, DC 20002-3695
Voice/TTY: 202-651-5000
E-mail: publicrel@gallua.gallaudet.edu

Midwest Center for Postsecondary Outreach (MCPO)

http://www.mcpo.org/

MCPO serves the following twelve midwestern states: Iowa, Illinois, Indiana, Kansas, Minnesota, Michigan, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

St. Paul Technical College
235 Marchall
St. Paul, MN 55102
Voice/TTY: 651-221-1337
Fax: 651-221-1339
E-mail: pbrill@stp.tec.mn.us

National Technical Institute for the Deaf (NTID)

http://www.ntid.edu

NTID, one of the seven colleges of Rochester Institute of Technology (RIT), is the world's first and largest technological college for students who are deaf. NTID represents the first concerted effort to educate large numbers of students who are deaf within a college campus planned principally for hearing students. Among RIT's 13,000 full- and part-time students are nearly 1,100 students who are deaf from the United States and other countries. In addition to information on the school and its programs, this site includes access to current research and other deafness-related information.

NTID
52 Lomb Memorial Drive
Rochester, NY 14623-5604
Voice/TTY: 716-475-6700
Fax: 716-475-2696

The Northeast Technical Assistance Center (NETAC)

http://www.netac.rit.edu/

NETAC serves the states and territories of Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Puerto Rico, Rhode Island, and Vermont.

NTID
52 Lomb Memorial Drive
Rochester, NY 14623-5604
Voice/TTY: 716-475-6433
Fax: 716-475-7660

The Postsecondary Education Consortium (PEC)

http://www.coe.utk.edu/grants/pec/default.html

The southern region served by PEC is composed of Alabama, Arkansas, Georgia, Florida, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and the Virgin Islands.

Postsecondary Education Consortium Center on Deafness
The University of Tennessee
2229 Dunford Hall
Knoxville, TN 37996-4020
Voice/TTY: 423-974-0607
Fax: 423-974-3522
E-mail: pec@utk.edu

Postsecondary Education Programs Network

www.pepnet.org

PEPNet is the national collaboration of the four regional postsecondary education centers for individuals who are deaf and hard of hearing. The centers are supported by contracts with OSERS. The goal of PEPNet is to assist postsecondary institutions across the nation in attracting and effectively serving individuals who are deaf and hard of hearing.

Western Region Outreach Center and Consortia (WROCC)

http://ncod.csun.edu/html/wrocc.html

WROCC serves the diverse western region of the United States, which includes the states and territories of Alaska, American Samoa, Arizona, California, Colorado, Guam, Hawaii, Idaho, Montana, Nevada, New Mexico, Northern Mariana Islands, Oregon, Utah, Washington, and Wyoming.

Western Region Outreach Center and Consortia
18111 Nordhoff Street
Northridge, CA 91330-8267
Voice/TTY: 888-684-4695 or 818-677-2611
Fax: 818-677-4899
E-mail: wrocc@csun.edu

Websites Related to Employment

ABLEDATA

http://www.abledata.com/index.htm

ABLEDATA is a federally funded project whose primary mission is to provide information on assistive technology and rehabilitation equipment available from domestic and international sources to consumers, organizations, professionals, and caregivers within the United States.

8455 Colesville Road, Suite 935
Silver Spring, MD 20910
Voice: 800-227-0216 or 301-608-8998
TTY: 301-608-8912
Fax: 301-608-8958
E-mail: ABLEDATA@macroint.com

ADA Disability and Business Technical Assistance Centers

http://www.adata.org/

The ADA Technical Assistance Program is a federally funded network of grantees that provides information, training, and technical assistance to businesses and agencies with duties and responsibilities under the ADA and to people with disabilities with rights under the ADA. Call 800-949-4232 to reach the center nearest you.

American Congress of Community Supports and Employment Services

http://accses.firminc.com/

The American Congress of Community Supports and Employment Services tracks related legislative action.

Voice: 888-285-4742

Association of Persons in Supported Employment (APSE)

http://www.apse.org/

APSE is a membership organization formed to improve and expand integrated employment opportunities, services, and outcomes for persons experiencing disabilities.

APSE
1627 Monument Avenue
Richmond, VA 23220
Voice: 804-278-9187

Bobby

http://www.cast.org/bobby

Bobby is a web-based program that reviews existing web pages for accessibility. Sites approved by Bobby may display the "Bobby Approved" icon.

Equal Employment Opportunity Commission (EEOC)

http://www.eeoc.gov

The mission of EEOC, as set forth in its strategic plan, is to promote equal opportunity in employment through administrative and judicial enforcement of the federal civil rights laws and through education and technical assistance.

EEOC
1801 L Street, NW
Washington, DC 20507
Voice: 800-669-4000
TTY: 800-669-6820

The Job Accommodation Network (JAN)

http://janweb.icdi.wvu.edu/

JAN is an international toll-free consulting service that provides information about job accommodations and the employability of people with disabilities. JAN also provides information on the ADA. The JAN "Points of Interest" page contains over 250 links to useful information.

Job Accommodation Network
West Virginia University
PO Box 6080
Morgantown, WV 26506-6080
Voice: 800-526-7234 (US); 800-526-2262 (Canada)
Fax: 304-293-5407
E-mail: jan@jan.icdi.wvu.edu

O*NET, The Occupational Information Network

http://www.doleta.gov/programs/onet

The comprehensive information in O*NET is organized in a relational database, available on CD-ROM, diskettes, and Internet download. This first public release of O*NET, known as O*NET 98, is being officially produced and distributed by the Government Printing Office. Some of the features of O*NET 98 include data describing over 1,100 occupations that connect to the OES;

capability to locate occupations through skill requirements or key words; electronic linkages that crosswalk O*NET occupational titles to eight other classification systems (DOT, MOS, OPM, etc.); labor market information from BLS on employment levels, occupational outlook, and wages; and "occupational profiles" giving a short overview of the most important data descriptions on each occupation.

O*NET Project
DOL Office of Policy and Research/ETA/O*NET
200 Constitution Avenue, NW, MS N5637
Washington, DC 20210
Voice: 202-219-7161
Fax: 202-219-9186
E-mail: O*NET@doleta.gov

President's Committee on Employment of People with Disabilities (PCEPD)

http://www.pcepd.gov

The mission of PCEPD is to facilitate the communication, coordination, and promotion of public and private efforts to enhance the employment of people with disabilities. The committee provides information, training, and technical assistance to America's business leaders, organized labor, rehabilitation and service providers, advocacy organizations, families, and individuals with disabilities. The president's committee reports to the president on the progress and problems of maximizing employment opportunities for people with disabilities.

PCEPD
1331 F Street, NW
Washington, DC 20004-1107
Voice: 202-376-6200
TTY: 202-376-6205
Fax: 202-376-6219

Rehabilitation Recruitment Center (RRC)

http://www.nchrtm.okstate.edu/rrc/

RRC is a unique resource of job listings in the public rehabilitation program. For those seeking internship opportunities, many of the jobs listed in the databases meet the payback criteria for RSA. Unlike other job banks, RRC is designed specifically for rehabilitation professionals and public rehabilitation programs in the United States and U.S. territories.

Rehabilitation Recruitment Center
5202 North Richmond Hill Drive
Stillwater, OK 74078-4080
Voice: 800-223-5219
TDD: 405-624-3156
Fax: 405-624-0695 fax
E-mail: djw5414@okstate.edu

Websites for Professional and Consumer Organizations

Alexander Graham Bell Association for the Deaf, Inc.

http://www.agbell.org/

The Alexander Graham Bell Association for the Deaf is a nonprofit membership organization that was established in 1890 to empower persons who are hearing impaired to function independently by promoting universal rights and optimal opportunities to learn to use, maintain, and improve all aspects of their verbal communications, including their abilities to speak, speech read, use residual hearing, and process both spoken and written language. This page provides information on the organization.

Alexander Graham Bell Association for the Deaf, Inc.
3417 Volta Place, NW
Washington, DC 20007
Voice/TTY: 202-337-5220
Fax: 202-337-8314
E-mail: agbell2@aol.com

American Speech and Hearing Association (ASHA)

http://www.asha.org/

ASHA is the professional, scientific, and credentialing association for more than 96,000 audiologists, speech-language pathologists, and speech, language, and hearing scientists. This site is a resource for ASHA members, persons interested in information about communication disorders, and those wanting career and membership information.

ASHA
10801 Rockville Pike
Rockville, MD 20852
Voice: 888-321-ASHA (321-2742) (Answer Line)

Voice: 800-498-2071 (Action Center)
Voice: 301-897-5700
TTY: 301-897-0157
Fax: 301-571-0457

Association of Late Deafened Adults (ALDA)

http://www.alda.org

ALDA supports the empowerment of people who are deafened, provides resources and information, and promotes advocacy and awareness of the needs of adults who have been deafened.

ALDA Inc.
1145 Westgate Street, Suite 206
Oak Park, IL 60301

International Federation of Hard of Hearing People (IFHOH)

http://www.ifhoh.org

IFHOH consists of national associations of and for people who are hard of hearing and late deafened, as well as for parents and professional organizations. IFHOH board members carry out their work on a voluntary basis. IFHOH is working to help nonmember countries develop consumer-based organizations that can provide leadership for their people with hearing loss.

IFHOH
PO Box 13
Hertfordshire, WD5 0RQ United Kingdom
Voice: + 44 1923 264584
Fax: + 44 1923 261635
E-mail: c_shaw@compuserve.com

National Association of the Deaf (NAD)

http://www.nad.org

NAD is a membership organization for persons who are deaf. In addition to providing information on NAD such as membership and publications, this site includes links to state associations and schools for the deaf.

NAD
814 Thayer Avenue
Silver Spring, MD 20910-4500

Voice: 301-587-1788
TTY: 301-587-1789
Fax: 301-587-1791
E-mail: NADinfo@nad.org

Professionals Networking for Excellence in Service Delivery with Individuals Who Are Deaf or Hard of Hearing (ADARA)

http://www.adara.org

ADARA promotes and participates in quality human service delivery to people who are deaf and hard of hearing through agencies and individuals. ADARA is a partnership of national organizations, local affiliates, professional sections, and individual members working together to support social services and rehabilitation delivery for those who are deaf and hard of hearing.

ADARA National Office
PO Box 6956
San Mateo, CA 94403-6956
E-mail: ADARAorgn@aol.com

Registry of Interpreters for the Deaf, Inc. (RID)

http://www.rid.org/

The philosophy of RID is that excellence in the delivery of interpretation and transliteration services among people who are deaf or hard of hearing and people who are hearing will ensure effective communication. As the professional association for interpreters and transliterators, RID serves as an essential arena for its members in their pursuit of excellence. It is the mission of RID to provide international, national, regional, state, and local forums and an organizational structure for the continued growth and development of the professions of interpretation and transliteration of ASL and English.

RID
8630 Fenton Street, Suite 324
Silver Spring, MD 20910
Voice/TTY: 301-608-0050
Fax: 301-608-0508

Self Help for Hard of Hearing People (SHHH)

http://www.shhh.org

SHHH is a nonprofit, educational organization dedicated to the well-being of people of all ages and communication styles who do not hear well. This site includes information about the organization, its membership, publications, convention, and local affiliates. There are several links to related resources on the web including technology and medical research.

SHHH
7910 Woodmont Avenue, Suite 1200
Bethesda, MD 20814
Voice: 301-657-2248
TTY: 301-657-2249
Fax: 301-913-9413
E-mail: national@shhh.org

Websites with General Information for Persons Who Are Deaf or Hard of Hearing

American Sign Language

http://www.signmedia.com/AboutASL.html

This page is designed to provide information about ASL, along with resources available for learning more about this unique visual language. For specific information on American Deaf culture or ASL-English interpretation, see the Sign Media home page.

Sign Media, Inc.
4020 Blackburn Lane
Burtonsville, MD 20866-1167
Voice/TTY: 800-475-4756 or 301-421-0268
Fax: 301-421-0270
E-mail: SignMedia@AOL.com

Council on Education of the Deaf

http://www.educ.kent.edu/deafed

This site provides a variety of information and links to other sites related to deafness.

Dr. Harold Johnson, Site Director
Kent State University

405 White Hall
Kent, OH 44242
Voice: 330-672-2294
TTY: 330-672-2396
Fax: 330-672-2512
E-mail: hjohnson@kentvm.kent.edu

Deaf Nation

http://www.deafnation.com/

This website provides an online version of a deaf newspaper.

Deaf Nation
10385 Trailing Dalea Avenue
Las Vegas, NV 89135
TTY: 702-804-1289
Voice/Fax: 702-804-1291
ICQ#:9215555
AOL IM: deafnation

Deaf Resource Library

http://www.deaflibrary.org

The Deaf Resource Library is an online collection of reference material and links intended to educate and inform people about Deaf cultures in Japan and the United States as well as other deaf- and hard-of-hearing-related topics.

Karen Nakamura
Department of Anthropology
Yale University
Box 208277 Yale Station
New Haven, CT 06520-8277
Fax: 203-432-3669
E-mail: karen.nakamura@yale.edu

Deaf World Web

http://dww.deafworldweb.org/

Deaf World Web is the largest and leading multipurpose deaf website, providing deaf-related information on all subjects from sociocultural resources to references around the world. Features

of this site include a deaf e-mail directory, a chat room for deaf issues, and links to several other websites related to persons who are deaf. It includes Deaf Encyclopedic Resources in English (http://www.deafworldweb.org/pub/).

Deafness from the Mining Company

http://deafness.miningco.com/

The website from the Mining Company includes weekly features, "net finds," resource pages, and more. It provides discussions on cued speech, hearing ear dogs and tinnitus, and access publications, from academic research journals to magazines for teens who are deaf.

Interpreter's Network

http://www.terpsnet.com/

This website is the Internet resource for interpreters whose working languages include a signed language.

Interpreter's Network
1326 Huron Street, Suite 230
London, Ontario, Canada, N5V 2E2
Voice: 519-679-8473
Fax: 519-451-2327

The League for the Hard of Hearing

http://www.lhh.org

The League for the Hard of Hearing was founded in 1910 and is a private not-for-profit rehabilitation agency for people who are hard of hearing and deaf and their families, regardless of age or mode of communication. Hearing conservation and public education about hearing are two major focus areas. The website includes information on their services and activities as well as links to related sites.

League for the Hard of Hearing
71 West 23rd Street
New York, NY 10010-4162
Voice: 917-305-7700
TTY: 917-305-7999
Fax: 917-305-7888

Listservs

http://www.educ.kent.edu/deafed/listinfo.htm

This site provides e-mail lists that can be joined to discuss various issues related to individuals who are deaf or hard of hearing.

National Information Center on Deafness (NICD)

http://www.gallaudet.edu/~nicd

NICD is a centralized source of accurate, up-to-date, objective information on topics dealing with deafness and hearing loss. NICD responds to a wide range of questions received from the general public, people who are deaf and hard of hearing, their families, and professionals who work with them. NICD collects, develops, and disseminates information on deafness, hearing loss, and services and programs related to people with hearing loss.

Gallaudet University
800 Florida Avenue, NE
Washington, DC 20002-3695
Voice: 202-651-5051
TTY: 202-651-5052
Fax: 202-651-5054

Tips for Hard of Hearing Travelers

http://www.netdoor.com/entinfo/herimaao.html

Travel is a very important aspect of our lives. Whether traveling for business, pleasure, or education, the traveler strives to be as relaxed and comfortable as possible. The 20 million people in the United States with hearing impairments are faced with numerous obstacles that can make traveling a difficult and frustrating event.

TRIPOD Captioned Films (TCF)

http://www.tripod.org/

TCF is a nonprofit, community outreach project of the TRIPOD Model School Program in Burbank, California. A program for children who are deaf and hard of hearing and their families, TRIPOD has received support from the entertainment industry since its inception in 1982. As a result, TCF has proven to be a natural partner, bringing together the studios, movie theaters, and the captioned film audience.

TCF
1727 West Burbank Boulevard
Burbank, CA 91506-1312
Voice/TTY: 818-972-2080
Fax: 818-972-2090
E-mail: info@tripod.org

Websites for Assistive Devices and Hearing Loss

Cochlear implants

http://www.his.com/~ps/wendy/silence.htm

This website provides an online journal about the experience of obtaining a cochlear implant.

Federal Register: The Access Board's Final Rule re Sec. 255 of the Telecommunication Act

http://www.access-board.gov/rules/telfinal.htm

The Architectural and Transportation Barriers Compliance Board is issuing final guidelines for accessibility, usability, and compatibility of telecommunications equipment and customer premises equipment covered by section 255 of the Telecommunications Act of 1996.

Hearing and Hearing Disorders

http://www.mankato.msus.edu/dept/comdis/kuster2/audiology.html

This website is a virtual "textbook of pointers" to information on the Internet about hearing and hearing disorders.

Information on fitting and selecting hearing aids, ALDs, etc.

http://www.uni-regensburg.de/Fakultaeten/Medizin/HNO/audio/ha95.htm
http://www.earinfo.com/#anchor104914
http://www.earinfo.com

Invisible Disabilities Page

http://www.shore.net/~dmoisan/invisible_disability.html

This page is aimed toward those of us who have diseases, disorders, and disabilities that are not visible to most people and are misunderstood or even met with hostility by society at large. This page is for all people with disabilities who want to understand each other better without falling

for the stereotypes so often held against them by others within the disabled community and society at large.

E-mail: invisible-disability-owner@onelist.com.

Project EASI: Equal Access to Software and Information

http://www.rit.edu/~easi

EASI's mission is to serve as a resource to the education community by providing information and guidance in the area of access-to-information technologies by individuals with disabilities. EASI stays informed about developments and advancements within the adaptive computer technology field and shares that information with colleges, universities, K-12 schools, libraries, and the workplace.

EASI
c/o TLT Group
PO Box 18928
Rochester, NY 14618
Voice: 716-244-9065

Technology Assessment Program (TAP) at Gallaudet's Research Institute

http://tap.gallaudet.edu/

TAP is a research group focusing on technologies and services that eliminate communication barriers traditionally faced by people who are deaf and hard of hearing. Its work has concentrated on visual communications, although it has also conducted studies on amplification technologies in collaboration with scientists in other universities.

Technology Assessment Program
Gallaudet University
800 Florida Avenue, NE
Washington, DC 20002-3695
Voice/TTY: 202-651-5257
Fax: 202-651-5476

TTY FAQ

http://www.weizmann.ac.il/deaf-info/tty_faq.html

This website provides answers to frequently asked questions about TTYs, including information on two-line VCOs.

Virtual Tour of the Ear: Audiologic Rehabilitation
http://ctl.augie.edu/perry/ear/ear.htm

Washington University, St. Louis Medical School Department of Otolaryngology and House Ear Institute
http://www.hei.org
The institute is dedicated to developing knowledge about hearing and related disorders and to sharing that knowledge with others so that people's lives may be improved. The institute link provides information about ongoing research efforts as well as public and professional educational programs.

Ear Institute
2100 West 3rd Street
Los Angeles, CA 90057

WyndTell service
http://www.wyndtel.com/
WyndTell is a wireless communications service that allows people to send and receive wireless messages using a choice of communications means, including TTY/TDD, e-mail, fax, alphanumeric devices, and even voice telephones. WyndTell service operates on self-contained handheld devices that include an integrated screen and keyboard.

Websites for Companies That Sell Assistive Devices

A hearing aid Internet wholesale dealer (includes hearing questionnaire)
http://www.ahearingaid.com

5 Long-Term Training Projects

Grants for the rehabilitation of individuals who are deaf or hard of hearing may be used to support pre-service training projects to increase the number of qualified personnel providing specialized rehabilitation services within the State-Federal Vocational Rehabilitation Program to persons who are deaf or hard of hearing. Job duties may include provision of assessment services, vocational and adjustment counseling services, provision of independent living skills training, interpreting services, interpreter referral services, advocacy services, and/or job placement services. A critical factor in success with this population is the ability to communicate with clients in their preferred mode. This typically includes possessing competency in ASL as well as familiarity with the use of various assistive listening devices.

Grantee:	**UNIVERSITY OF ARKANSAS**	**Phone:**	501-686-9691
	College of Education	**Grant:**	H129Q990007
	4601 West Markham	**Duration:**	60 months
	Little Rock, AR 72205	**Start Date:**	09/01/99
Director:	Douglas Watson, Ph.D.	**Region:**	06
Grantee:	**UNIVERSITY OF TENNESSEE**	**Phone:**	423-974-4135
	College of Education	**Grant:**	H129Q990002
	Center on Deafness	**Start Date:**	07/01/99
	Andy Holt Tower	**Duration:**	60 months
	2231 Dunford Hall	**Region:**	04
	Knoxville, TN 37996-4020		
Director:	John Schultz		

Grantee:	**NORTHERN ILLINOIS UNIVERSITY**	**Phone:**	815-753-6514
	Department of Communicative Disorders	**Grant:**	H129Q990006
	DeKalb, IL 60115	**Start Date:**	10/01/99
Director:	Sue E. Ouellette	**Duration:**	60 months
		Region:	05

Grantee:	**WESTERN OREGON UNIVERSITY**	**Phone:**	503-838-8446
	Department of Special Education	**Grant:**	H129Q980007
	Regional Resource Center on Deafness	**Start Date:**	09/01/98
	Monmouth, OR 97361	**Duration:**	5 years
Director:	John Freeburg	**Region:**	10

Grantee:	**NEW YORK UNIVERSITY**	**Phone:**	212-998-5224
	Department of Health Studies	**Grant:**	H129Q980002
	35 West 4th Street, Suite 120	**Start Date:**	09/01/98
	New York, NY 10012	**Duration:**	5 years
Director:	Randolph Mowry	**Region:**	02

Grantee:	**SAN DIEGO STATE UNIVERSITY**	**Phone:**	619-594-6406
	Department of Rehabilitation Counseling Programs	**Grant:**	H129Q980004
		Start Date:	07/01/98
	5850 Hardy Avenue, Suite 112	**Duration:**	5 years
	San Diego, CA 92182	**Region:**	09
Director:	Ron Jacobs, Ph.D.		

Grantee:	**GALLAUDET UNIVERSITY**	**Phone:**	202-651-5401
	Counseling Department	**Grant:**	H129Q970001
	800 Florida Avenue, NE	**Start Date:**	09/01/97
	Washington, DC 20002	**Duration:**	3 years
Director:	Stanley M. Matelski, Ph.D.	**Region:**	03

Grantee:	**KENT STATE UNIVERSITY**	**Phone:**	330-672-2294
	Educational Foundation	**Grant:**	H129Q970007
	1335 Terrace Hall	**Start Date:**	09/01/97
	Kent, OH 44242	**Duration:**	3 years
Director:	Pamela Luft, Ph.D.	**Region:**	05

Grantee:	**SAN FRANCISCO STATE**	**Phone:**	415-338-7869
	Department of Counseling	**Grant:**	H129Q970006
	1600 Holloway Avenue	**Start Date:**	09/01/97
	San Francisco, CA 94132	**Duration:**	3 years
Director:	Alice Nemon, Ph.D.	**Region:**	09

6 Resources: Model Program Service Centers

Three organizations were funded by the RSA between 1992 and 1997 under an absolute priority for service center programs for persons who are LFD. These three programs, the Lexington Center in New York City, the Southwest Center for the Hearing Impaired (SCHI) (now Methodist Family and Rehabilitation Services) in San Antonio, TX, and the Community Outreach Program for the Deaf (COPD) in Arizona (including a Tucson-based program, Valley Center of the Deaf in Phoenix, and Community Outreach Programs in Albuquerque, NM, and rural and reservation-based areas of the two states) operated with these funds between three and five years (see Watson, 1998a, 1998b; and Harmon, Carr, & Johnson, 1998). The Lexington Center adapted services to address the needs in a large metropolitan area without a residential program; COPD served both urban and rural communities with a transitional community-based living component; and SCHI used a campus-based model in a suburban setting. These agencies had several program elements in common:

- *Emphasis on employment and employment outcomes*
- *Comprehensive approach to services:* assessment, independent living skills, basic education, employment-related training/work adjustment, supported employment, follow-up, and follow-along
- *Expert staff:* Persons with communication skills, with a high ratio of staff who are deaf or hard of hearing
- *Multicultural approach:* Service to high ratios of non-white and non-English-speaking families

The focus of the programs was on persons with the most significant disabilities, within a population of persons with significant disabilities.

Programs adapted techniques to the demands of the environments where they were located (highly urban, suburban, rural), recognizing that persons function in their communities and that no two types of communities are alike.

All programs were person-centered in their approach, recognizing the skills and the abilities of the individual as the basis for assessment and plan development.

Each of these programs attained employment-based outcomes in either competitive or supported employment for 67% to 80% of the total persons served. This ratio is more significant in that 23% of the total persons served by these centers were still in programs when funding was discontinued. If resources were made available until the service plans for all individuals were completed, the outcomes for employment could have improved by an additional 15%.

These centers continue to operate at a reduced scope under fee-for-service agreements with the State VR Agencies. They are a resource for information in their geographic areas:

Lexington Vocational Services Inc.
30th Avenue and 75th Street
Jackson Heights, NY 11370
Phone: 718-899-8800
Fax: 718-899-9846

Methodist Family and Rehabilitation Services
6487 Whitby Road
San Antonio, TX 78240-2198
Phone: 210-699-3311
Fax: 210-696-0231

Community Outreach Program for the Deaf
268 West Adams
Tucson, AZ 85705
Phone: 520-792-1906
Fax: 520-770-8544